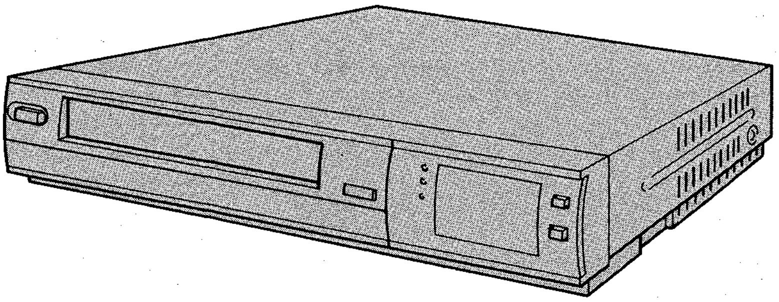
ORDER NO. VRD8903M113

Service Manual

Video Cassette Recorder

Panasonic VHS HQ
PAL

NV-L25 EO EV EI
VW-VPS5



SPECIFICATIONS

ITEM	SPECIFICATIONS
POWER	SOURCE: 220 V, 50/60 Hz
	CONSUMPTION: 22 W
RECORDING SYSTEM	2 rotary heads, helical scanning system
	PAL
TV TUNER SYSTEM	VHF I: CHE2~CHE4 VHF III: CHS4~CHE12 VHF H: CHS11~CHS41 (PAL B) 75Ω unbalanced UHF: CH21~CH69 (PAL G) 75Ω unbalanced
RF OUT SYSTEM	UHF: CH36±4 (PAL G) 70^{+2}_{-3} dBμ, 75Ω terminated (NV-L25EO/EV) 70^{+2}_{-3} dBμ, 75Ω terminated (NV-L25EI)
VIDEO	HEADS: 4 rotary heads 1 pair for recording, playback (L-R heads) 1 pc. for trick play (L′−R′ heads)
	INPUT: VIDEO IN Connector (BNC type) 1.0 Vp-p, 75Ω terminated EURO AV Connector (21 pin) 1.0 Vp-p, 75Ω terminated
	OUTPUT: EURO AV Connector (21 pin) 1.0 Vp-p, 75Ω terminated

ITEM	SPECIFICATIONS
AUDIO	HEAD: 1 Stationary head (Normal Audio)
	INPUT: AUDIO IN Connector (PHONO type) More than −10 dBV (316 mV), more than 50 kΩ EURO AV Connector (21 pin) More than −10 dBV (316 mV), more than 10 kΩ MICROPHONE JACK 70 dBV
	OUTPUT: EURO AV Connector (21 pin) −6 dBV (500 mV), less than 1 kΩ
TAPE FORMAT	VHS Cassette tape (Tape width 12.7 mm)
TAPE SPEED	23.39 mm/s SP: 23.39 mm/s LP: 11.695 mm/s (NV-L25EO/EV) Record/Playback Time: SP: 4 hours with 240 min. type tape LP: 8 hours with 240 min. type tape (NV-L25EO/EV) FF/REW Time: 5.5 min. with 180 min. type tape
DIMENSIONS	380 (W)×82 (H)×343.5 (D) mm
WEIGHT	5.0 kg (NV-L25EO/EV) 5.2 kg (NV-L25EI)
STANDARD ACCESSORIES	1 pc. DIN-RF Cable 1 pc. Infra-red remote controller (Build in Digital Scanner type) 1 pc. Programme sheet 1 pc. AC Cord
OPTIONAL ACCESSORIES	VW-VPS5 (NV-L25EO/EI ONLY)

Weight and dimensions shown are approximate.
Specifications are subject to change without notice.

Panasonic

Matsushita Electric Industrial Co., Ltd.
Central P.O. Box 288, Osaka 530-91, Japan

INTRODUCTION

This service manual contains technical information which will allow service technicians to understand and service the VHS Video Cassette Recorder Model NV-L25EV/EO/EI.
This service manual is based on NV-L25EG/B service manual.
Therefore please refer to the descriptions which are shown in NV-L25EG/B service manual, Order no. VRD8902M109.

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Technical Information

Subject: How to install the VPS DECODER (VW-VPS5)

To install the optional VPS Decoder (VW-VPS5), consult your Panasonic dealer.

❶ Do not connect the video recorder to the mains outlet.

❷ Unfasten the two screws of the cabinet cover and remove the cabinet cover.

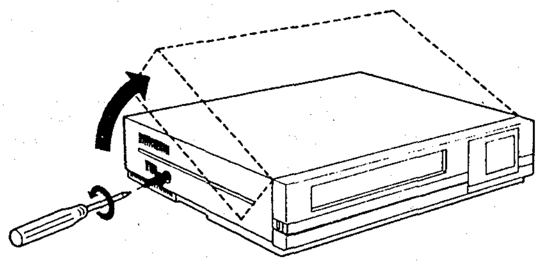
❸ Confirm the position where the VPS Decoder is to be inserted on the main printed circuit board and melt and remove the solder in the rectangular hole.

❹ Remove the two screws on the back of the unit and the three screws on the upper side of the main printed circuit board. Push down the clip at an angle, so that the main printed circuit board will be released.

❺ Lift the main printed circuiit board up into vertical position, insert the VPS Decoder and solder it.

❻ Reassemble the VTR.

❷



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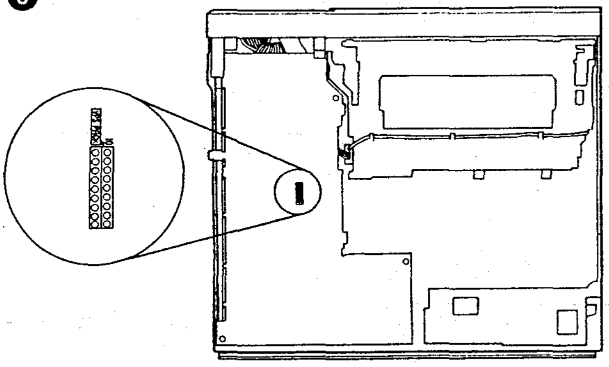

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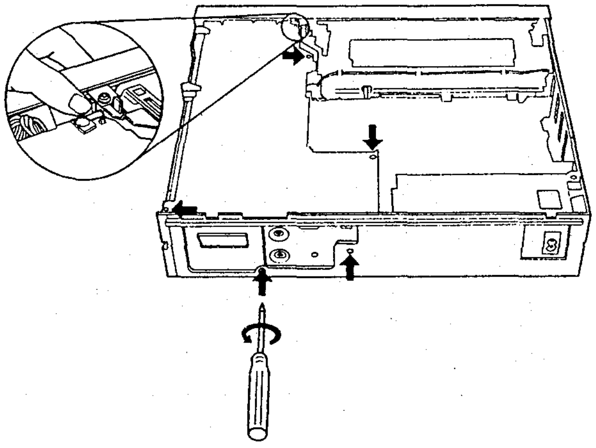

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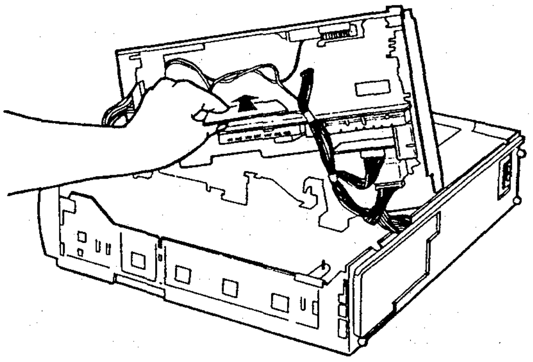


SERVICE INFORMATION

1-1.HOW TO CHECK THE CRACKED CHIP PART

(1) Apply heat to the soldered portions of chip part using a soldering iron for about 2–3 seconds.
(2) If the chip part is faulty,it will be broken or cracked.

Caution: Do not leave soldering iron on the PCB too long as damage may occur to the PCB or the chip parts.

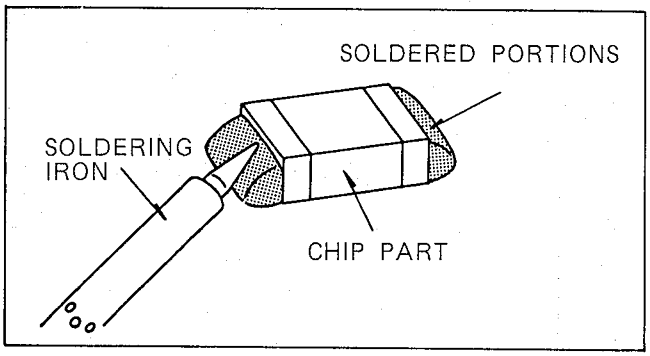

SOLDERED PORTIONS
SOLDERING IRON
CHIP PART

FIG. G1

Note: Regarding intermittent faults
The main causes of these faults are poor soldering and cracked chip parts.

1-2.HOW TO REPLACE THE CHIP PART

1) REMOVAL (RESISTOR, CAPACITOR, etc...)

(1) Presolder the one side of soldering portion for chip part and grasp the chip part by tweezers.

(2) Melt the presoldered portion. And then remove the chip part with a twisting motion while melting the soldering portion of another side quickly.

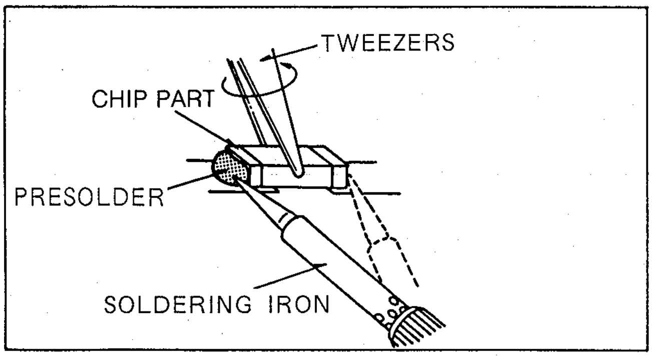

TWEEZERS
CHIP PART
PRESOLDER
SOLDERING IRON

FIG. G2

2) REMOVAL (transistor, diode, etc...)

(1) Grasp the chip part with tweezers and melt th solder of one lead.

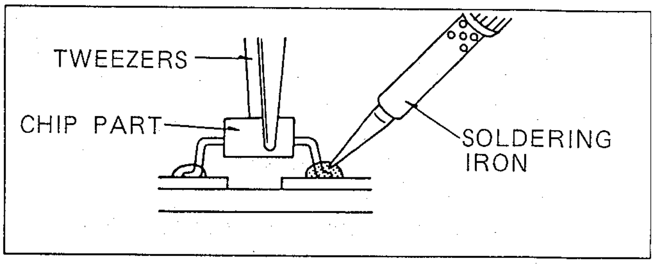

TWEEZERS
CHIP PART
SOLDERING IRON

FIG. G3

(2) Lift the side of that lead upward.

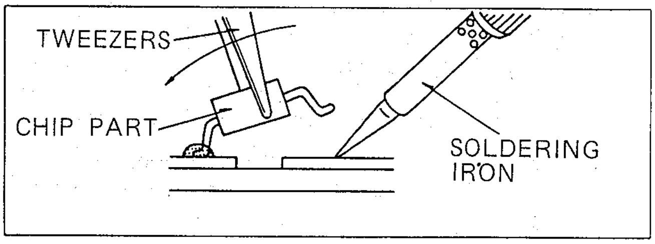

TWEEZERS
CHIP PART
SOLDERING IRON

FIG. G4

Caution: Do not lift the chip part too high as damage may occur to the PCB or the leads that are still soldered on the PCB.

(3) Simultaneously heat the solder of the two remaining leads and lift part to remove.

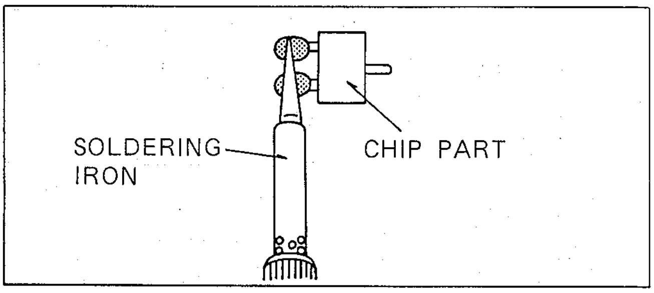

SOLDERING IRON
CHIP PART

FIG. G5

3) INSTALLATION

(1) Presolder the one side of contact point on the circuit board.

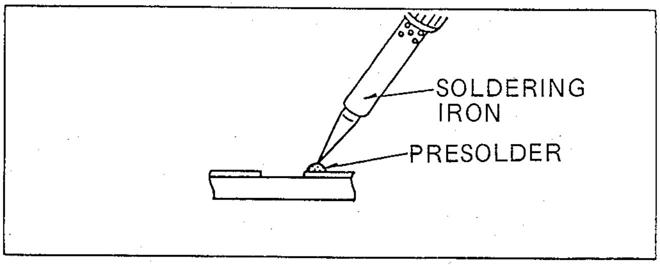

SOLDERING IRON
PRESOLDER

FIG. G6

(2) To install the chip part,hold in position using tweezers, apply heat to the pre–soldered portions using a fine tip soldering iron.
(3) Solder the other side of the chip part.
(4) Check your soldering.

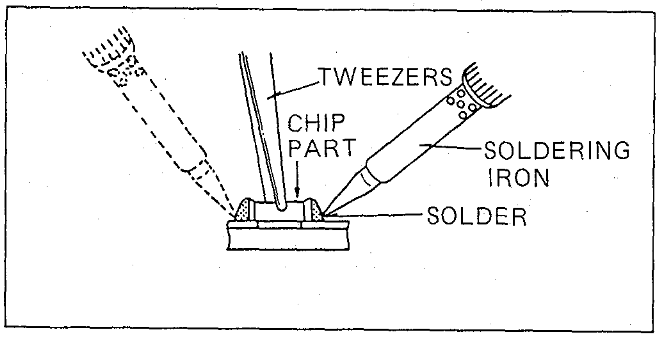

TWEEZERS
CHIP PART
SOLDERING IRON
SOLDER

FIG. G7

1-3.HOW TO REMOVE THE FLAT-IC

(WITH HOT–AIR FLAT–IC DESOLDERING MACHINE)

(FOR EXAMPLE)

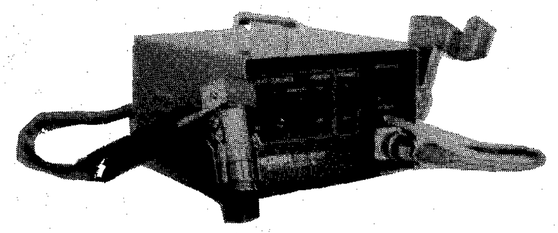


FIG. G8

(1) Prepare the HOT–AIR FLAT–IC DESOLDERING MACHINE. And then apply hot air to FLAT–IC about 5 ~ 8 seconds.

(2) Remove the FLAT–IC with tweezers while applying the hot air.

Caution: Do not supply the hot air to the chip parts around the Flat–IC for long time as as damage may occur to the chip parts around the Flat –IC.

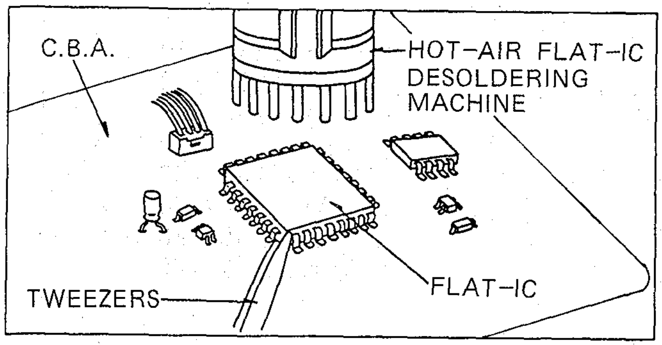

C.B.A.
HOT–AIR FLAT–IC DESOLDERING MACHINE
FLAT–IC
TWEEZERS

FIG. G9

(WITH SOLDERING IRON)

(1) Using solder braid remove the solder from all pins of the Flat–IC.
When you use the solder flux which is applied to all pins of the Flat–IC,you can remove it easily.

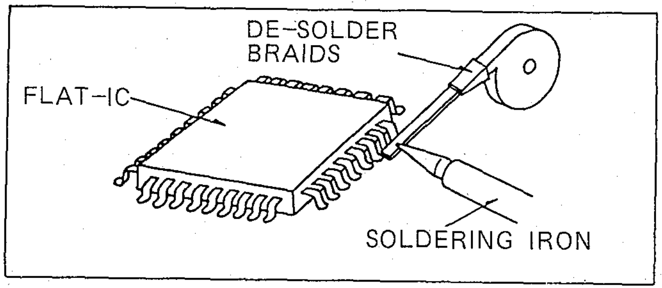

DE–SOLDER BRAIDS
FLAT–IC
SOLDERING IRON

FIG. G10

(2) Lift each lead of the Flat–IC upward one by one using a sharp pin or non solder wire(iron wire),while heating the pins using a fine tip soldering iron or a hot air blower.

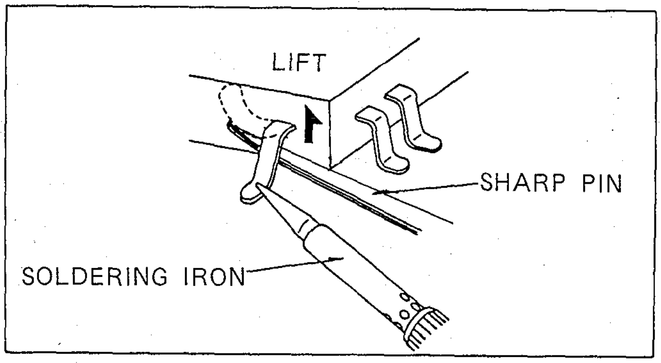

LIFT
SHARP PIN
SOLDERING IRON

FIG. G11

(WITH IRON WIRE)

(1) Affix the wire to workbench or solid mounting point as shown in FIG.G12.
(2) Pull up wire as the solder melts so as to lift the IC lead from the PCB contact pad,while heating the pins using a fine tip soldering iron or hot air blower.

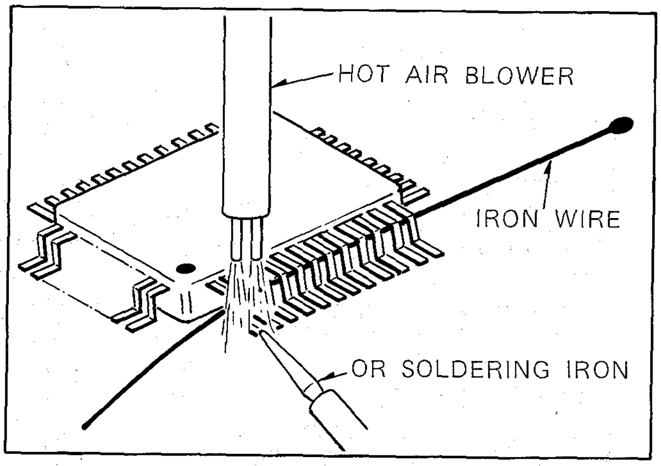

HOT AIR BLOWER
IRON WIRE
OR SOLDERING IRON

FIG.G12

Note: When using a soldering iron care must be taken to ensure that the Flat IC is not being held by glue before it is the PCB may be damaged if force is used.

1. COMPARISON CHART

This chart is described different part from the basic model NV-L25EG to the new model NV-L25EV/EO/EI.

Notes:1.IMPORTANT STFETY NOTICE
Components identified with the mark< ! >have the special characteristics for safety. When replacing any of these components, use only the same type.

Mechanical Replacement Parts (A)...Added, (C)...Changed, (D)...Deleted

Ref. No	NV-L25EG Part No.	NV-L25EO/EV/EI Part No.	Pcs/ Set	Part Name & Description	Remarks
300(4)	VYP2622	VYP2602	1	TOP PANEL UNIT	(C)
302(4)	VKU0309	VKU0245	1	BOTTOM PLATE	(C)
303(4)	VYP2642	VYP2715	1	FRONT PANEL UNIT	(C)
311(4)	VHD0059	VHD0059	7→4	BOTTOM PLATE SCREW	(C)
322(4)	------	VMP1994	0→1	TOP HOLDER ANGLE (RR)	(A)
324(4)	VMP1037	------	1→0	TOP HOLDER ANGLE (L)	(D)NV-L25EV/EO
400(4)	VQT3088	VQT3159	1	OPERATING INSTRUCTIONS (ENGLISH/GERMAN/FRENCH)	(C)< ! >
		VQT3216	1	OPERATING INSTRUCTIONS (ITALIAN)	(C)NV-L25EV/EI< ! >
		VQT3160	1	OPERATING INSTRUCTIONS (FINNISH/SWEDISH)	(C)NV-L25EO< ! > [SUPPLIED FROM M.B.V]
		VQT3161	1	OPERATING INSTRUCTIONS (SPANISH/DUTCH)	(C)NV-L25EO< ! > [SUPPLIED FROM M.B.V]
408(5)	VPG4597	VPG4695	1	PACKING	(C)NV-L25EV
		VPG4696	1	PACKING	(C)NV-L25EO [SUPPLIED FROM M.B.V]
		VPG4746	1	PACKING	(C)NV-L25EI [SUPPLIED FROM M.B.V]
403(5)	VJA0443	VJA0449	1	AC POWER CORD	(C)NV-L25EV/EO< ! >

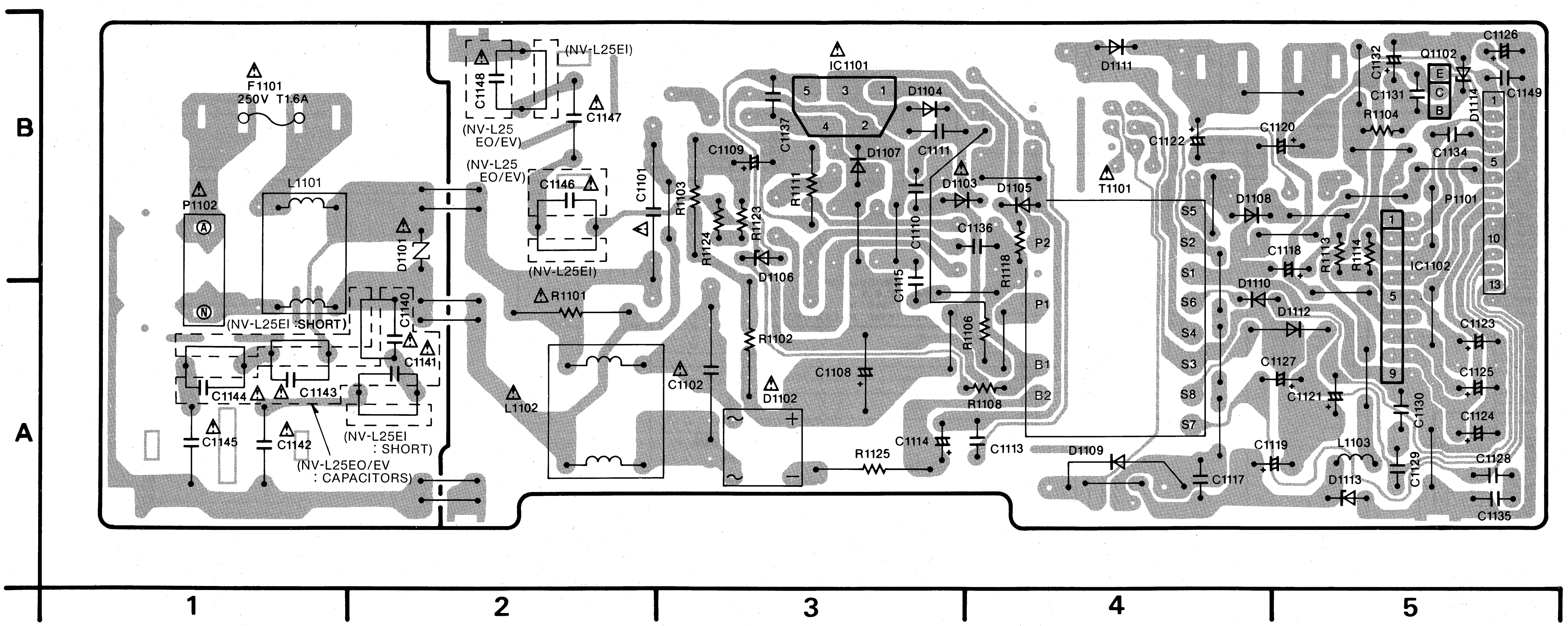
Electrical Replacement Parts (A)...Added, (C)...Changed, (D)...Deleted

Ref. No	NV-L25EG Part No.	NV-L25EO/EV/EI Part No.	Pcs/ Set	Part Name & Description	Remarks
	VEP03588E	VEP03588H	1	MAIN C.B.A.	(C)NV-L25EV< ! >
		VEP03588K	1	MAIN C.B.A.	(C)NV-L25EO< ! > [SUPPLIED FROM M.B.V]
		VEP03588F	1	MAIN C.B.A.	(C)NV-L25EI< ! > [SUPPLIED FROM M.B.V]
	VEP03590B	VEP03590D	1	SUB MAIN C.B.A.	(C)NV-L25EV/EO
		VEP03590S	1	SUB MAIN C.B.A.	(C)NV-L25EI [SUPPLIED FROM M.B.V]
	VEP03452B	------	1→0	DDR SECAM PACK C.B.A.	(D)
	VEP03594B	VEP03594D	1	INPUT/OUTPUT C.B.A.	(C)NV-L25EV/EO
	VEP07536C	VEP07536D	1	TV DEMODU C.B.A.	(C)NV-L25EV/EO
	VEP05137D	VEP05137A	1	HEAD AMP C.B.A.	(C)NV-L25EV/EO
	VEP07543C	VEP07543E	1	TIMER C.B.A.	(C)NV-L25EV/EO
	VEP06558G	VEP06558A	1	OPERATION C.B.A.	(C)NV-L25EV/EO
	VEP01379D	VEP01379E	1	POWER C.B.A.	(C)NV-L25EV/EO< ! >
	ENC17956	ENC17954	1	RF CONVERTER	(C)NV-L25EV/EO< ! >
	ENV57830H6	ENV57829H6	1	TUNER UNIT	(C)NV-L25EV/EO

2. POWER C.B.A. (VEP01379E: NV-L25EV/EO) (VEP01379D: NV-L25EI)

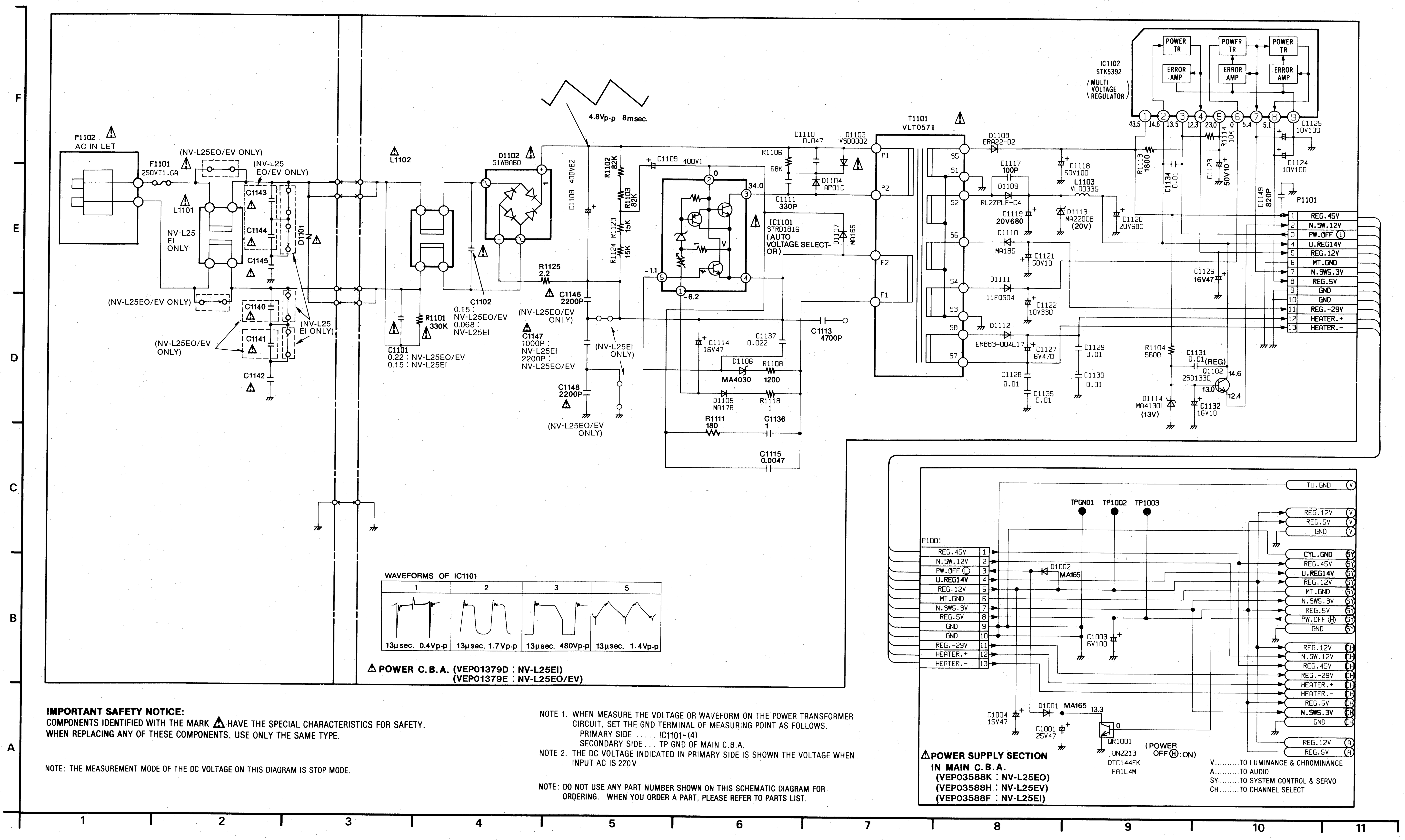
POWER C.B.A.	
Transistor	
Q1102	B-5
Integrated Circuit	
IC1101	B-3
IC1102	B-5
Connector	
P1101	B-5
P1102	B-1

ADDRESS INFORMATION



B
A
1
2
3
4
5
F1101
250V T1.6A
P1102
Ⓐ
Ⓝ
L1101
D1101
(NV-L25EI :SHORT)
C1140
C1141
C1144
C1143
C1145
C1142
(NV-L25EI
: SHORT)
(NV-L25EO/EV
: CAPACITORS)
C1148
(NV-L25EI)
C1147
(NV-L25
EO/EV)
C1146
R1101
L1102
C1101
R1103
R1124
C1109
R1123
C1137
D1106
R1102
C1102
D1102
R1125
IC1101
5
3
1
4
2
D1104
D1107
R1111
C1111
D1103
D1105
C1136
C1110
C1115
R1118
R1106
C1108
R1108
C1114
C1113
P2
P1
B1
B2
D1111
T1101
D1109
C1117
S5
S2
S1
S6
S4
S3
S8
S7
C1122
C1120
D1108
C1118
D1110
D1112
C1127
C1121
C1119
L1103
D1113
R1113
R1114
C1132
C1131
Q1102
E
C
B
D1114
R1104
C1134
C1126
C1149
IC1102
1
5
9
P1101
1
5
10
13
C1130
C1129
C1123
C1125
C1124
C1128
C1135

3. POWER SCHEMATIC DIAGRAM


F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11
P1102
AC IN LET
F1101
250VT1.6A
(NV-L25EO/EV ONLY)
(NV-L25 EO/EV ONLY)
L1101
NV-L25 EI ONLY
C1143
C1144
C1145
D1101
(NV-L25EO/EV ONLY)
C1140
C1141
C1142
(NV-L25 EI ONLY)
L1102
C1101
0.22 : NV-L25EO/EV
0.15 : NV-L25EI
R1101
330K
D1102
S1WBA60
C1108 400V82
C1102
0.15 : NV-L25EO/EV
0.068 : NV-L25EI
R1125
2.2
C1146
2200P
(NV-L25EO/EV ONLY)
C1147
1000P : NV-L25EI
2200P : NV-L25EO/EV
C1148
2200P
(NV-L25EO/EV ONLY)
(NV-L25EI ONLY)
4.8Vp-p 8msec.
R1102 82K
R1103 82K
R1123 15K
R1124 15K
C1109 400V1
IC1101
STR01816
(AUTO VOLTAGE SELECTOR)
34.0
-1.1
-6.2
C1110
0.047
D1103
VSD0002
R1106
68K
D1104
AP01C
C1111
330P
D1107
MA165
C1114
16V47
C1137
0.022
D1106
MA4030
R1108
1200
D1105
MA178
R1118
1
R1111
180
C1136
1
C1115
0.0047
C1113
4700P
T1101
VLT0571
P1
P2
F2
F1
S5
S1
S2
S6
S4
S3
S8
S7
D1108
ERA22-02
C1117
100P
D1109
RL2ZPLF-C4
C1118
50V100
L1103
VLQ0335
C1119
20V680
D1113
MA2200B
(20V)
C1120
20V680
D1110
MA185
C1121
50V10
D1111
11EQS04
C1122
10V330
D1112
ERB83-004L17
C1127
6V470
C1128
0.01
C1135
0.01
C1129
0.01
C1130
0.01
IC1102
STK5392
(MULTI VOLTAGE REGULATOR)
POWER TR
ERROR AMP
43.5
14.6
13.5
12.3
23.0
0
5.4
5.1
C1125
10V100
R1113
1800
C1134
0.01
R1114
10K
C1123
50V10
C1124
10V100
C1149
820P
P1101
C1126
16V47
R1104
5600
C1131
0.01
(REG)
Q1102
2SD1330
14.6
13.0
12.4
D1114
MA4130L
(13V)
C1132
16V10
REG.45V
N.SW.12V
PW.OFF Ⓛ
U.REG14V
REG.12V
MT.GND
N.SW5.3V
REG.5V
GND
GND
REG.-29V
HEATER.+
HEATER.-
WAVEFORMS OF IC1101
1
2
3
5
13μsec. 0.4Vp-p
13μsec. 1.7Vp-p
13μsec. 480Vp-p
13μsec. 1.4Vp-p
POWER C.B.A. (VEP01379D : NV-L25EI)
(VEP01379E : NV-L25EO/EV)
TU.GND Ⓥ
TPGND1
TP1002
TP1003
P1001
REG.12V Ⓥ
REG.5V Ⓥ
GND Ⓥ
CYL.GND ⓈⓎ
REG.45V ⓈⓎ
U.REG14V ⓈⓎ
REG.12V ⓈⓎ
MT.GND ⓈⓎ
N.SW5.3V ⓈⓎ
REG.5V ⓈⓎ
PW.OFF Ⓗ ⓈⓎ
GND ⓈⓎ
D1002
MA165
C1003
6V100
REG.12V ⒸⒽ
N.SW.12V ⒸⒽ
REG.45V ⒸⒽ
REG.-29V ⒸⒽ
HEATER.+ ⒸⒽ
HEATER.- ⒸⒽ
REG.5V ⒸⒽ
N.SW5.3V ⒸⒽ
GND ⒸⒽ
REG.12V Ⓐ
REG.5V Ⓐ
C1004
16V47
D1001 MA165
13.3
C1001
25V47
0
QR1001
UN2213
DTC144EK
FA1L4M
(POWER OFF Ⓗ:ON)
POWER SUPPLY SECTION IN MAIN C.B.A.
(VEP03588K : NV-L25EO)
(VEP03588H : NV-L25EV)
(VEP03588F : NV-L25EI)

V..........TO LUMINANCE & CHROMINANCE
A..........TO AUDIO
SY........TO SYSTEM CONTROL & SERVO
CH........TO CHANNEL SELECT

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

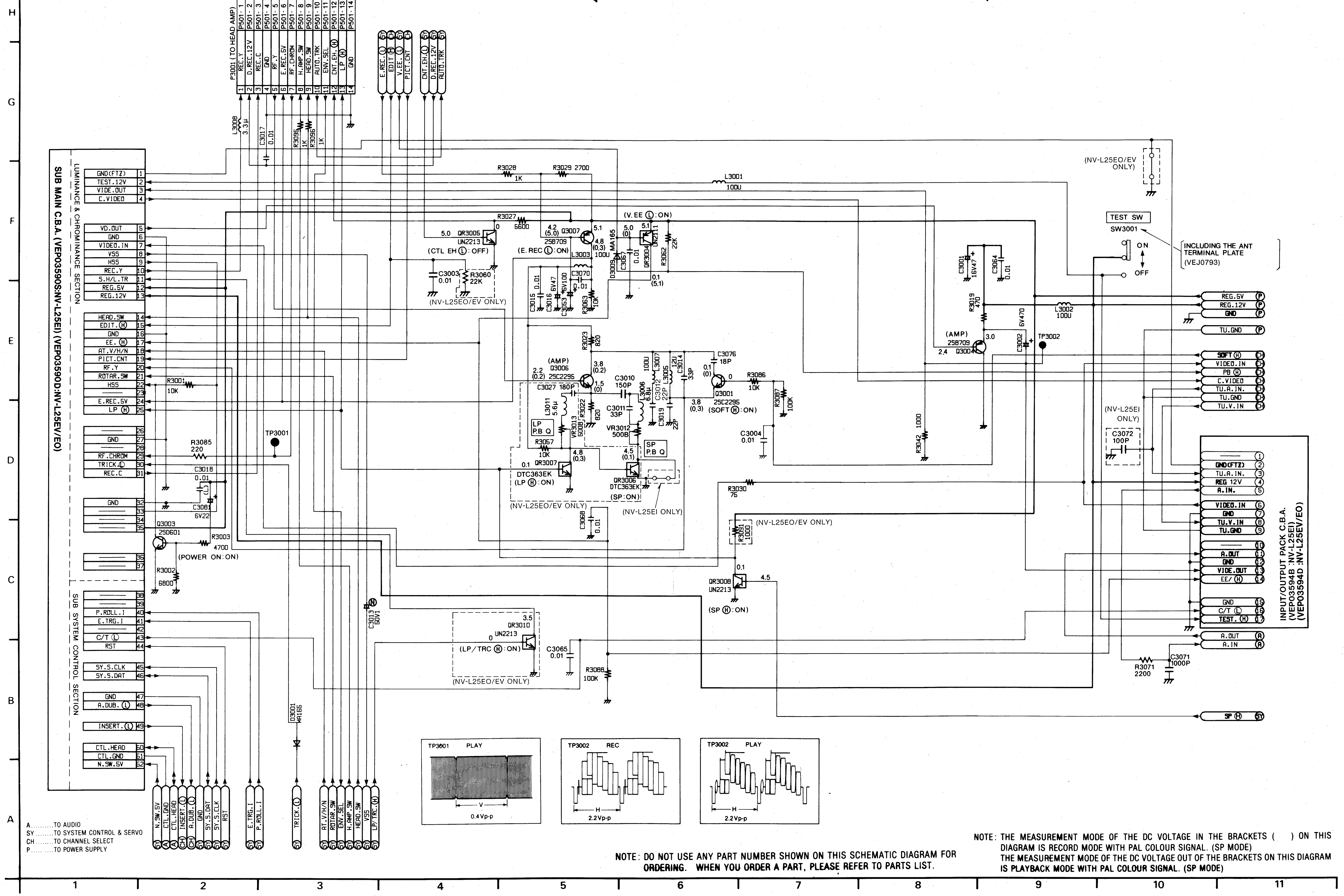
NOTE 1. WHEN MEASURE THE VOLTAGE OR WAVEFORM ON THE POWER TRANSFORMER CIRCUIT, SET THE GND TERMINAL OF MEASURING POINT AS FOLLOWS.
PRIMARY SIDE ..... IC1101-(4)
SECONDARY SIDE... TP GND OF MAIN C.B.A.

NOTE 2. THE DC VOLTAGE INDICATED IN PRIMARY SIDE IS SHOWN THE VOLTAGE WHEN INPUT AC IS 220V.

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

4. LUMINANCE & CHROMINANCE SCHEMATIC DIAGRAM

⬅ VIDEO MAIN SIGNAL PATH IN REC MODE
⇦ VIDEO MAIN SIGNAL PATH IN PLAYBACK MODE
⬅ AUDIO MAIN SIGNAL PATH IN REC MODE
⇦ AUDIO MAIN SIGNAL PATH IN PLAYBACK MODE

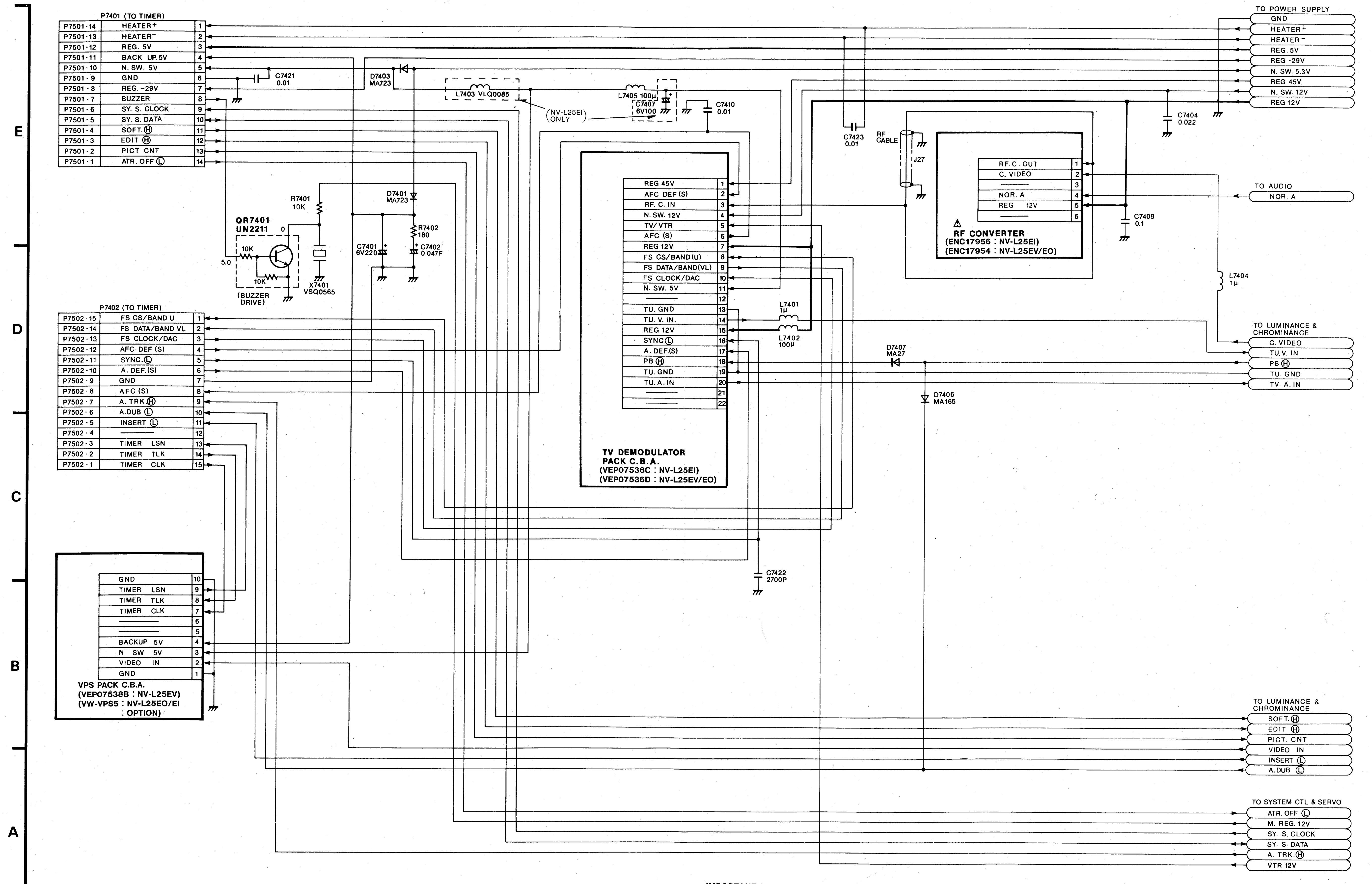

SUB MAIN C.B.A. (VEP03590S:NV-L25EI) (VEP03590D:NV-L25EV/EO)
LUMINANCE & CHROMINANCE SECTION
SUB SYSTEM CONTROL SECTION
P3001 (TO HEAD AMP)
INPUT/OUTPUT PACK C.B.A. (VEP03594B :NV-L25EI) (VEP03594D :NV-L25EV/EO)
TEST SW
SW3001
ON
OFF
INCLUDING THE ANT TERMINAL PLATE (VEJ0793)
(NV-L25EO/EV ONLY)
(NV-L25EI ONLY)
TP3001
TP3002
TP3001 PLAY
0.4Vp-p
TP3002 REC
2.2Vp-p
TP3002 PLAY
2.2Vp-p
H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11

A..........TO AUDIO
SY.........TO SYSTEM CONTROL & SERVO
CH.........TO CHANNEL SELECT
P..........TO POWER SUPPLY

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL. (SP MODE)
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL. (SP MODE)

5. CHANNEL SELECT SCHEMATIC DIAGRAM

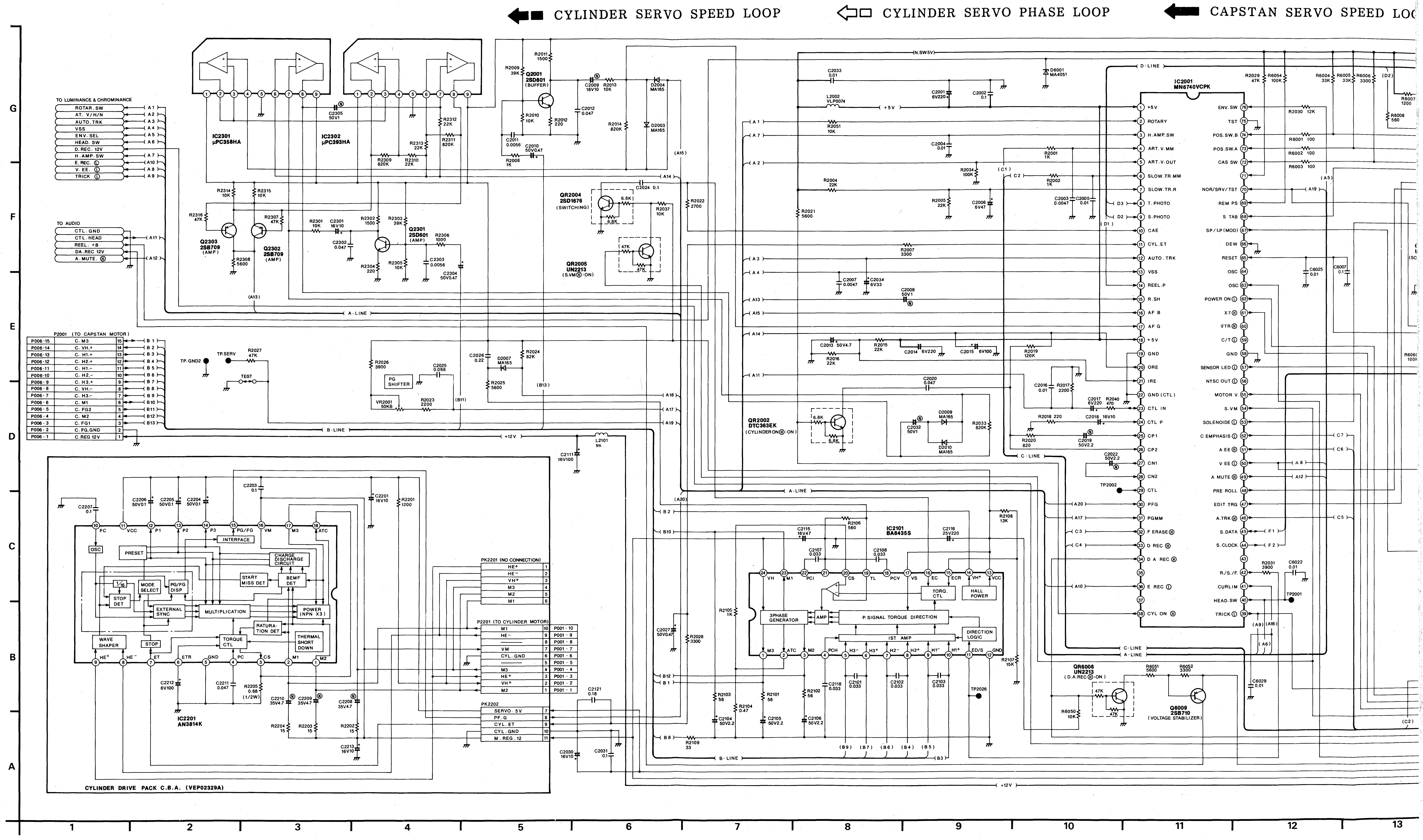

P7401 (TO TIMER)
P7501-14 HEATER+ 1
P7501-13 HEATER− 2
P7501-12 REG. 5V 3
P7501-11 BACK UP. 5V 4
P7501-10 N. SW. 5V 5
P7501-9 GND 6
P7501-8 REG. −29V 7
P7501-7 BUZZER 8
P7501-6 SY. S. CLOCK 9
P7501-5 SY. S. DATA 10
P7501-4 SOFT. Ⓗ 11
P7501-3 EDIT Ⓗ 12
P7501-2 PICT CNT 13
P7501-1 ATR. OFF Ⓛ 14
C7421 0.01
D7403 MA723
L7403 VLQ0085
(NV-L25EI) ONLY
L7405 100µ
C7407 6V100
C7410 0.01
R7401 10K
QR7401 UN2211
0
10K
5.0
10K
(BUZZER DRIVE)
X7401 VSQ0565
D7401 MA723
R7402 180
C7401 6V220
C7402 0.047F
P7402 (TO TIMER)
P7502-15 FS CS/BAND U 1
P7502-14 FS DATA/BAND VL 2
P7502-13 FS CLOCK/DAC 3
P7502-12 AFC DEF (S) 4
P7502-11 SYNC. Ⓛ 5
P7502-10 A. DEF. (S) 6
P7502-9 GND 7
P7502-8 AFC (S) 8
P7502-7 A. TRK Ⓗ 9
P7502-6 A. DUB Ⓛ 10
P7502-5 INSERT Ⓛ 11
P7502-4 ——— 12
P7502-3 TIMER LSN 13
P7502-2 TIMER TLK 14
P7502-1 TIMER CLK 15
REG 45V 1
AFC DEF (S) 2
RF. C. IN 3
N. SW. 12V 4
TV/VTR 5
AFC (S) 6
REG 12V 7
FS CS/BAND (U) 8
FS DATA/BAND (VL) 9
FS CLOCK/DAC 10
N. SW. 5V 11
——— 12
TU. GND 13
TU. V. IN. 14
REG 12V 15
SYNC Ⓛ 16
A. DEF. (S) 17
PB Ⓗ 18
TU. GND 19
TU. A. IN 20
——— 21
——— 22
TV DEMODULATOR PACK C.B.A.
(VEP07536C : NV-L25EI)
(VEP07536D : NV-L25EV/EO)
L7401 1µ
L7402 100µ
C7422 2700P
C7423 0.01
RF CABLE
J27
RF.C. OUT 1
C. VIDEO 2
——— 3
NOR. A 4
REG 12V 5
——— 6
⚠ RF CONVERTER
(ENC17956 : NV-L25EI)
(ENC17954 : NV-L25EV/EO)
C7409 0.1
C7404 0.022
L7404 1µ
D7407 MA27
D7406 MA165
TO POWER SUPPLY
GND
HEATER+
HEATER−
REG. 5V
REG −29V
N. SW. 5.3V
REG 45V
N. SW. 12V
REG 12V
TO AUDIO
NOR. A
TO LUMINANCE & CHROMINANCE
C. VIDEO
TU. V. IN
PB Ⓗ
TU. GND
TV. A. IN
GND 10
TIMER LSN 9
TIMER TLK 8
TIMER CLK 7
——— 6
——— 5
BACKUP 5V 4
N SW 5V 3
VIDEO IN 2
GND 1
VPS PACK C.B.A.
(VEP07538B : NV-L25EV)
(VW-VPS5 : NV-L25EO/EI : OPTION)
TO LUMINANCE & CHROMINANCE
SOFT. Ⓗ
EDIT Ⓗ
PICT. CNT
VIDEO IN
INSERT Ⓛ
A. DUB Ⓛ
TO SYSTEM CTL & SERVO
ATR. OFF Ⓛ
M. REG. 12V
SY. S. CLOCK
SY. S. DATA
A. TRK. Ⓗ
VTR 12V
E
D
C
B
A
1
2
3
4
5
6
7
8

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

6. SYSTEM CONTROL & SERVO SCHEMATIC DIAGRAM


CYLINDER SERVO SPEED LOOP
CYLINDER SERVO PHASE LOOP
CAPSTAN SERVO SPEED LOO
TO LUMINANCE & CHROMINANCE
ROTAR. SW
AT. V/H/N
AUTO. TRK
VSS
ENV. SEL
HEAD. SW
D. REC. 12V
H. AMP. SW
E. REC.
V. EE.
TRICK
TO AUDIO
CTL. GND
CTL. HEAD
REEL. +B
DA. REC 12V
A. MUTE
IC2301 μPC358HA
IC2302 μPC393HA
Q2303 2SB709 (AMP)
Q2302 2SB709 (AMP)
Q2301 2SD601 (AMP)
Q2001 2SD601 (BUFFER)
QR2004 2SD1676 (SWITCHING)
QR2005 UN2213 (S.VM ON)
QR2002 DTC363EK (CYLINDER ON ON)
A-LINE
B-LINE
C-LINE
D-LINE
(N.SW5V)
+5V
+12V
P2001 (TO CAPSTAN MOTOR)
C. M3
C. VH.+
C. H1.+
C. H2.+
C. H1.-
C. H2.-
C. H3.+
C. VH.-
C. H3.-
C. M1
C. FG2
C. M2
C. FG1
C. FG.GND
C. REG 12V
TP. GND2
TP. SERV
TEST
PG SHIFTER
VR2001 50KB
IC2001 MN6740VCPK
ROTARY
H. AMP. SW
ART. V. MM
ART. V. OUT
SLOW. TR. MM
SLOW. TR. R
T. PHOTO
S. PHOTO
CAE
CYL. ET
AUTO. TRK
VSS
REEL. P
R. SH
AF B
AF G
GND
ORE
IRE
GND (CTL)
CTL IN
CTL P
CP1
CP2
CN1
CN2
CTL
PFG
PGMM
F ERASE
D REC
D A REC
E REC
CYL ON
ENV. SW
TST
POS. SW. B
POS. SW. A
CAS SW
NOR/SRV/TST
REM PS
S TAB
SP/LP (MOD)
DEW
RESET
OSC
POWER ON
X7
VTR
C/T
SENSOR LED
NTSC OUT
MOTOR V.
S. VM
SOLENOIDE
C EMPHASIS
A EE
V EE
A MUTE
PRE ROLL
EDIT TRG
A. TRK
S. DATA
S. CLOCK
R./S./F.
CURLIM
HEAD. SW
TRICK
TP2001
TP2002
TP2026
IC2101 BA6435S
3PHASE GENERATOR
AMP
P. SIGNAL TORQUE DIRECTION
IST AMP
DIRECTION LOGIC
TORQ. CTL
HALL POWER
QR6008 UN2213 (D.A.REC ON)
Q6009 2SB710 (VOLTAGE STABILIZER)
PK2201 (NO CONNECTION)
P2201 (TO CYLINDER MOTOR)
PK2202
SERVO. 5V
PF. G
CYL. ET
CYL. GND
M. REG. 12
IC2201 AN3814K
OSC
PRESET
INTERFACE
CHARGE DISCHARGE CIRCUIT
START MISS DET
BEMF DET
MODE SELECT
PG/FG DISP
STOP DET
EXTERNAL SYNC
MULTIPLICATION
POWER (NPN X3)
RATURATION DET
THERMAL SHORT DOWN
TORQUE CTL
WAVE SHAPER
STOP
CYLINDER DRIVE PACK C.B.A. (VEP02329A)
G
F
E
D
C
B
A
1
2
3
4
5
6
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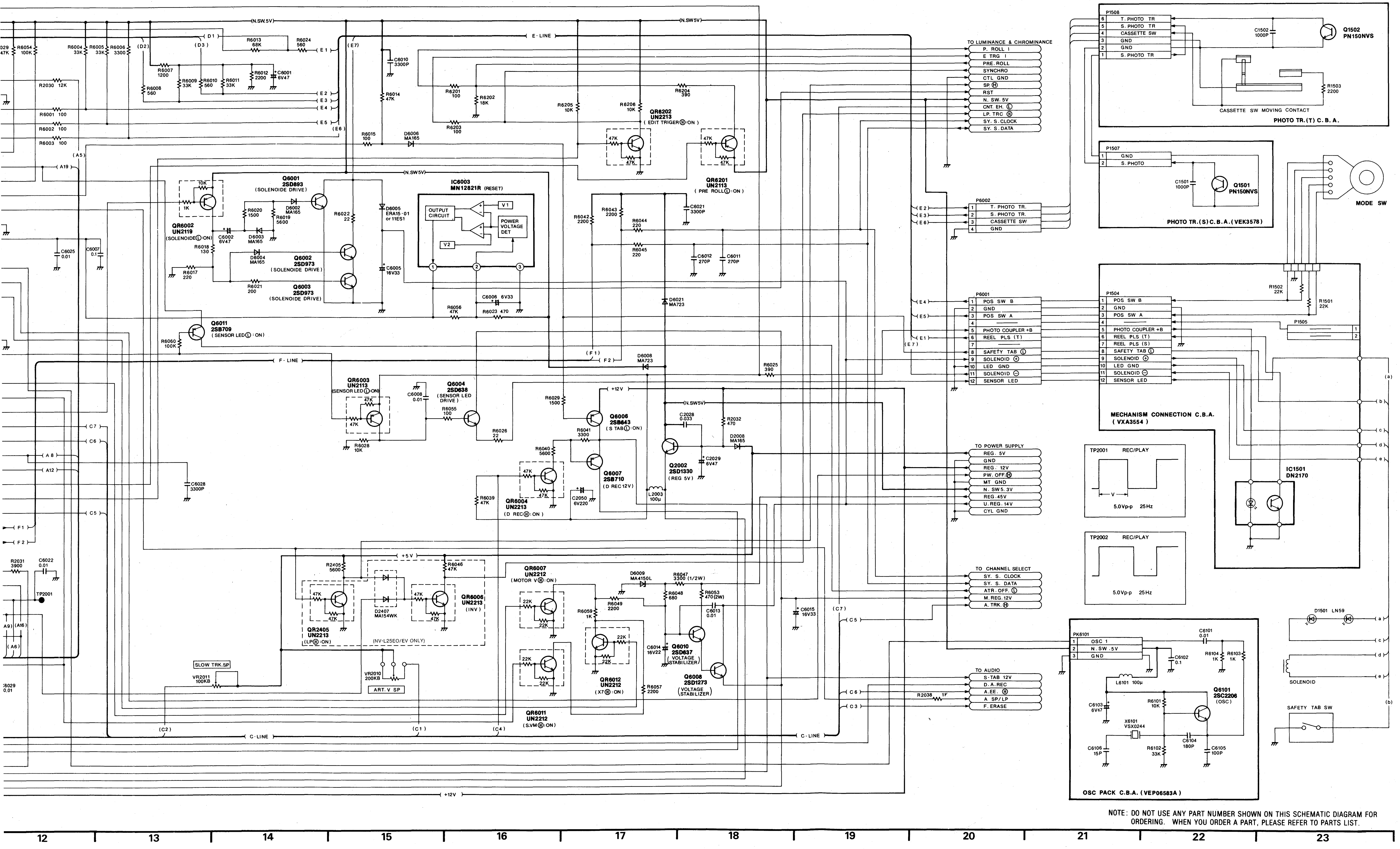
11
12
13

TAN SERVO SPEED LOOP ⇦ CAPSTAN SERVO PHASE LOOP



IC6003 MN12821R (RESET)
OUTPUT CIRCUIT
POWER VOLTAGE DET
Q6001 2SD893 (SOLENOIDE DRIVE)
Q6002 2SD973 (SOLENOIDE DRIVE)
Q6003 2SD973 (SOLENOIDE DRIVE)
QR6002 UN2119 (SOLENOIDE Ⓛ·ON)
Q6011 2SB709 (SENSOR LEDⓁ·ON)
QR6003 UN2113 (SENSOR LEDⓁ·ON)
Q6004 2SD638 (SENSOR LED DRIVE)
QR6202 UN2213 (EDIT TRIGERⒽ·ON)
QR6201 UN2113 (PRE ROLLⓁ·ON)
Q6006 2SB643 (S TABⓁ·ON)
Q6007 2SB710 (D REC12V)
QR6004 UN2213 (D RECⒽ·ON)
Q2002 2SD1330 (REG 5V)
QR2405 UN2213 (LPⒽ·ON)
QR6006 UN2213 (INV)
(NV-L25EO/EV ONLY)
QR6007 UN2212 (MOTOR VⒽ·ON)
QR6012 UN2212 (X7Ⓗ·ON)
QR6011 UN2212 (S.VMⒽ·ON)
Q6010 2SD637 (VOLTAGE STABILIZER)
Q6008 2SD1273 (VOLTAGE STABILIZER)
SLOW TRK.SP
ART.V SP
E · LINE
F · LINE
C · LINE
+12V
+5V
(N.SW.5V)
TO LUMINANCE & CHROMINANCE
P. ROLL I
E TRG I
PRE.ROLL
SYNCHRO
CTL GND
SP Ⓗ
RST
N. SW. 5V
CNT. EH. Ⓛ
LP. TRC Ⓗ
SY. S. CLOCK
SY. S. DATA
P6002
T. PHOTO TR.
S. PHOTO TR.
CASSETTE SW
GND
P6001
POS SW B
GND
POS SW A
PHOTO COUPLER +B
REEL PLS (T)
SAFETY TAB Ⓛ
SOLENOID ⊕
LED GND
SOLENOID ⊖
SENSOR LED
TO POWER SUPPLY
REG. 5V
GND
REG. 12V
PW. OFF Ⓗ
MT GND
N. SW 5.3V
REG. 45V
U. REG. 14V
CYL GND
TO CHANNEL SELECT
SY. S. CLOCK
SY. S. DATA
ATR. OFF. Ⓛ
M. REG. 12V
A. TRK. Ⓗ
TO AUDIO
S·TAB 12V
D. A. REC
A. EE. Ⓗ
A SP/LP
F. ERASE
P1508
T. PHOTO TR
S. PHOTO TR
CASSETTE SW
GND
GND
S. PHOTO TR
Q1502 PN150NVS
CASSETTE SW MOVING CONTACT
PHOTO TR.(T) C.B.A.
P1507
GND
S. PHOTO
Q1501 PN150NVS
PHOTO TR.(S) C.B.A. (VEK3578)
MODE SW
P1504
POS SW B
GND
POS SW A
PHOTO COUPLER +B
REEL PLS (T)
REEL PLS (S)
SAFETY TAB Ⓛ
SOLENOID ⊕
LED GND
SOLENOID ⊖
SENSOR LED
P1505
MECHANISM CONNECTION C.B.A. (VXA3554)
IC1501 DN2170
TP2001 REC/PLAY 5.0Vp-p 25Hz
TP2002 REC/PLAY 5.0Vp-p 25Hz
PK6101
OSC 1
N. SW .5V
GND
Q6101 2SC2206 (OSC)
X6101 VSX0244
OSC PACK C.B.A. (VEP06583A)
D1501 LN59
SOLENOID
SAFETY TAB SW
12
13
14
15
16
17
18
19
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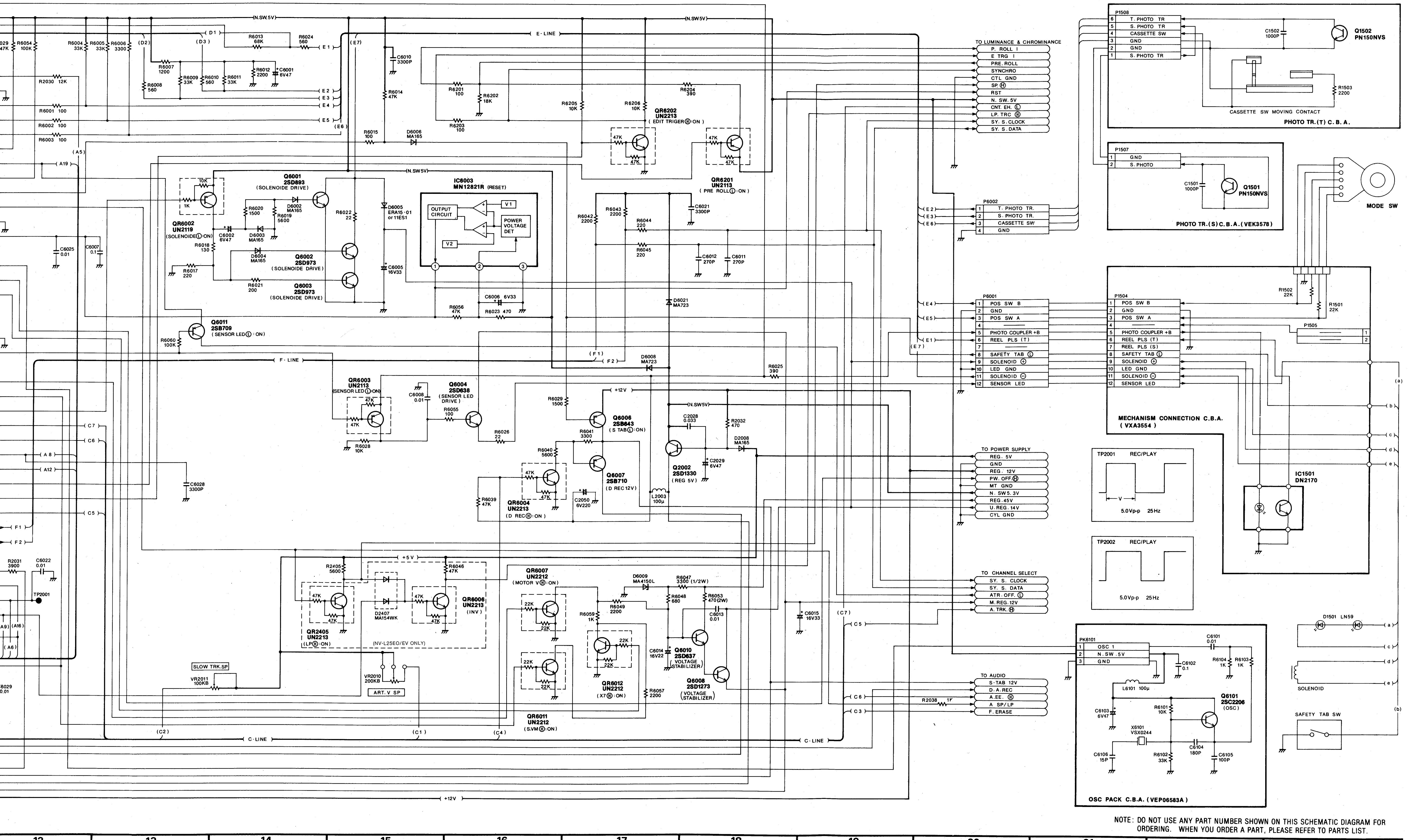
21
22
23

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

TAN SERVO SPEED LOOP ⇦ CAPSTAN SERVO PHASE LOOP



IC6003 MN12821R (RESET)
OUTPUT CIRCUIT
POWER VOLTAGE DET
V1
V2
Q6001 2SD893 (SOLENOIDE DRIVE)
Q6002 2SD973 (SOLENOIDE DRIVE)
Q6003 2SD973 (SOLENOIDE DRIVE)
QR6002 UN2119 (SOLENOIDE Ⓛ·ON)
Q6011 2SB709 (SENSOR LED Ⓛ·ON)
QR6003 UN2113 (SENSOR LED Ⓛ·ON)
Q6004 2SD638 (SENSOR LED DRIVE)
QR6202 UN2213 (EDIT TRIGER Ⓗ·ON)
QR6201 UN2113 (PRE ROLL Ⓛ·ON)
Q6006 2SB643 (S TAB Ⓛ·ON)
Q6007 2SB710 (D REC 12V)
QR6004 UN2213 (D REC Ⓗ·ON)
Q2002 2SD1330 (REG 5V)
QR2405 UN2213 (LP Ⓗ·ON)
QR6006 UN2213 (INV)
(NV-L25EO/EV ONLY)
QR6007 UN2212 (MOTOR V Ⓗ·ON)
QR6012 UN2212 (X7 Ⓗ·ON)
QR6011 UN2212 (S.VM Ⓗ·ON)
Q6010 2SD637 (VOLTAGE STABILIZER)
Q6008 2SD1273 (VOLTAGE STABILIZER)
SLOW TRK.SP
VR2011 100KB
VR2010 200KB
ART. V SP
TP2001
E - LINE
F - LINE
C - LINE
(N.SW.5V)
+12V
+5V
TO LUMINANCE & CHROMINANCE
P. ROLL I
E TRG I
PRE. ROLL
SYNCHRO
CTL GND
SP Ⓗ
RST
N. SW. 5V
CNT. EH. Ⓛ
LP. TRC Ⓗ
SY. S. CLOCK
SY. S. DATA
P6002
T. PHOTO TR.
S. PHOTO TR.
CASSETTE SW
GND
P6001
POS SW B
GND
POS SW A
PHOTO COUPLER +B
REEL PLS (T)
SAFETY TAB Ⓛ
SOLENOID ⊕
LED GND
SOLENOID ⊖
SENSOR LED
TO POWER SUPPLY
REG. 5V
GND
REG. 12V
PW. OFF Ⓗ
MT GND
N. SW 5. 3V
REG. 45V
U. REG. 14V
CYL GND
TO CHANNEL SELECT
SY. S. CLOCK
SY. S. DATA
ATR. OFF. Ⓛ
M. REG. 12V
A. TRK. Ⓗ
TO AUDIO
S-TAB 12V
D.A.REC
A.EE. Ⓗ
A SP/LP
F. ERASE
P1508
T. PHOTO TR
S. PHOTO TR
CASSETTE SW
GND
GND
S. PHOTO TR
Q1502 PN150NVS
CASSETTE SW MOVING CONTACT
PHOTO TR. (T) C. B. A.
P1507
GND
S. PHOTO
Q1501 PN150NVS
PHOTO TR. (S) C. B. A. (VEK3578)
MODE SW
P1504
POS SW B
GND
POS SW A
PHOTO COUPLER +B
REEL PLS (T)
REEL PLS (S)
SAFETY TAB Ⓛ
SOLENOID ⊕
LED GND
SOLENOID ⊖
SENSOR LED
P1505
MECHANISM CONNECTION C.B.A. (VXA3554)
IC1501 DN2170
TP2001 REC/PLAY
V
5.0Vp-p 25Hz
TP2002 REC/PLAY
5.0Vp-p 25Hz
PK6101
OSC 1
N. SW. 5V
GND
Q6101 2SC2206 (OSC)
L6101 100μ
X6101 VSX0244
OSC PACK C.B.A. (VEP06583A)
D1501 LN59
SOLENOID
SAFETY TAB SW
12
13
14
15
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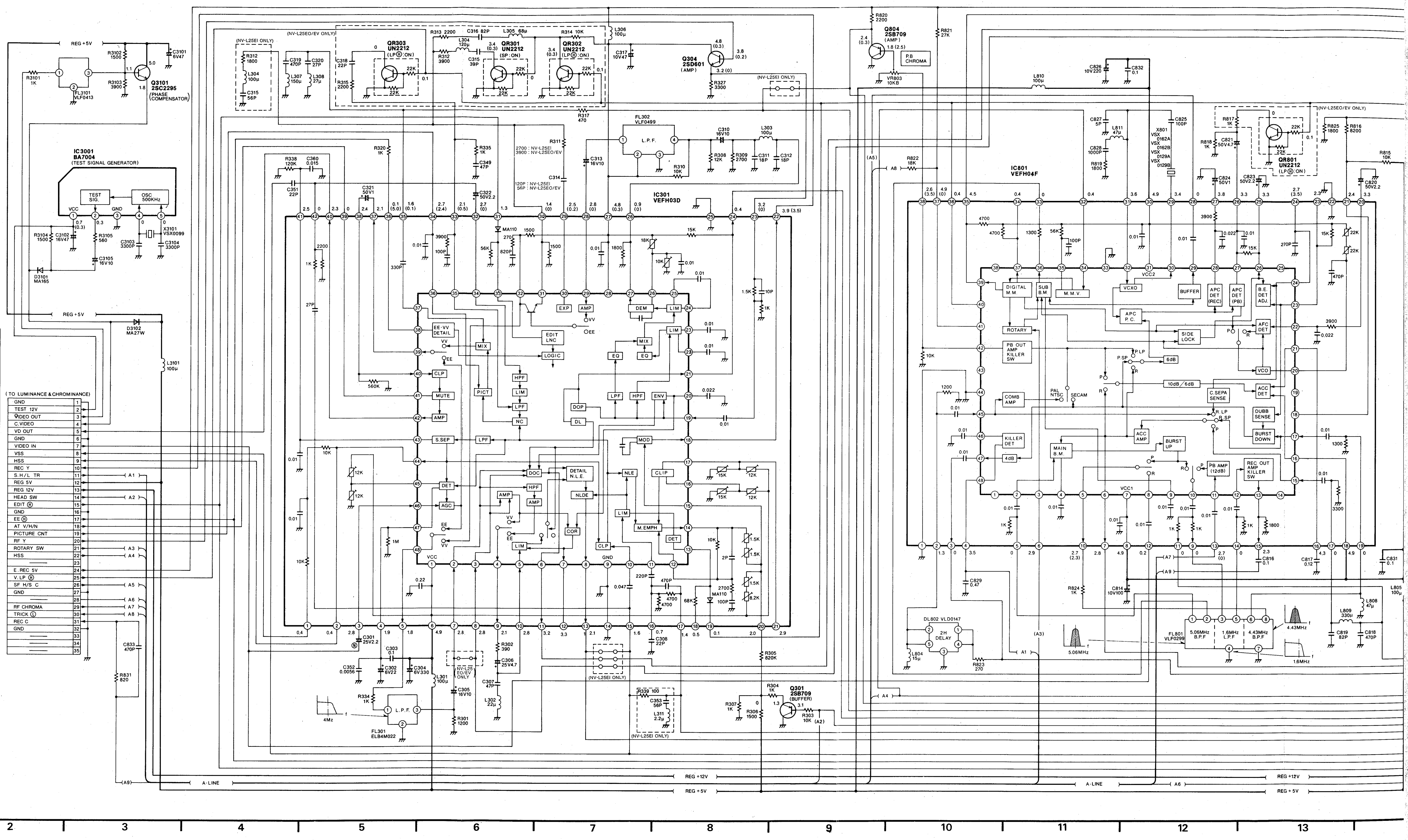
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

7. SUB MAIN SCHEMATIC DIAGRAM

MAIN SIGNAL PATH IN REC MODE
MAIN SIGNAL PATH IN PLAYBACK MODE

5.06MHz PHASE ROTATIONAL SIGNAL IN REC M
5.06MHz PHASE ROTATIONAL SIGNAL IN PLAYB


REG +5V
R3101 1K
FL3101 VLF0413
R3102 1500
R3103 3900
Q3101 2SC2295 (PHASE COMPENSATOR)
C3101 6V47
IC3001 BA7004 (TEST SIGNAL GENERATOR)
TEST SIG.
OSC 500KHz
VCC
GND
X3101 VSX0099
R3104 1500
C3102 16V47
R3105 560
C3103 3300P
C3104 3300P
C3105 16V10
D3101 MA165
D3102 MA27W
L3101 100μ
(TO LUMINANCE & CHROMINANCE)
1 GND
2 TEST 12V
3 VIDEO OUT
4 C.VIDEO
5 VD OUT
6 GND
7 VIDEO IN
8 VSS
9 HSS
10 REC Y
11 S.H/L TR
12 REG 5V
13 REG 12V
14 HEAD SW
15 EDIT Ⓗ
16 GND
17 EE Ⓗ
18 AT V/H/N
19 PICTURE CNT
20 RF Y
21 ROTARY SW
22 HSS
23 ——
24 E.REC 5V
25 V.LP Ⓗ
26 SF H/S C
27 GND
28 ——
29 RF CHROMA
30 TRICK Ⓛ
31 REC C
32 GND
33 ——
34 ——
35 ——
C833 470P
R831 820
(NV-L25EI ONLY)
(NV-L25EO/EV ONLY)
QR303 UN2212 (LP Ⓗ:ON)
QR301 UN2212 (SP:ON)
QR302 UN2212 (LP Ⓗ:ON)
Q304 2SD601 (AMP)
FL302 VLF0499
L.P.F.
IC301 VEFH03D
EE-VV DETAIL
MIX
CLP
MUTE
AMP
S.SEP
LPF
DET
AGC
PICT
LIM
NC
HPF
EDIT LNC
LOGIC
EXP
DEM
EQ
DOP
DL
DOC
DETAIL N.L.E.
NLDE
NLE
CLIP
M.EMPH
COR
MOD
FL301 ELB4M022
4Mz
Q301 2SB709 (BUFFER)
Q804 2SB709 (AMP)
P.B CHROMA
IC801 VEFH04F
DIGITAL M.M
SUB B.M
M.M.V.
VCXO
BUFFER
APC DET (REC)
APC DET (PB)
B.E DET ADJ.
APC P.C.
SIDE LOCK
AFC DET
VCO
ROTARY
PB OUT AMP KILLER SW
COMB AMP
KILLER DET
4dB
MAIN B.M.
ACC AMP
BURST UP
C.SEPA SENSE
ACC DET
DUBB SENSE
BURST DOWN
PB AMP (12dB)
REC OUT AMP KILLER SW
10dB/6dB
6dB
PAL NTSC
SECAM
X801 VSX0162A
QR801 UN2212 (LP Ⓗ:ON)
DL802 VLD0147
2H DELAY
FL801 VLF0299
5.06MHz B.P.F
1.6MHz L.P.F
4.43MHz B.P.F
5.06MHz
4.43MHz
1.6MHz
A·LINE
REG +12V
REG +5V
G
F
E
D
C
B
A
1
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4
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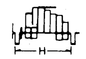
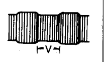
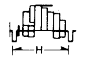
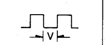
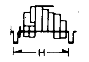
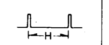
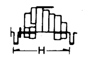
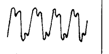
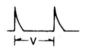
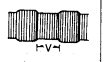
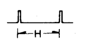
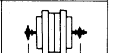
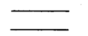
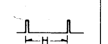
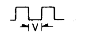
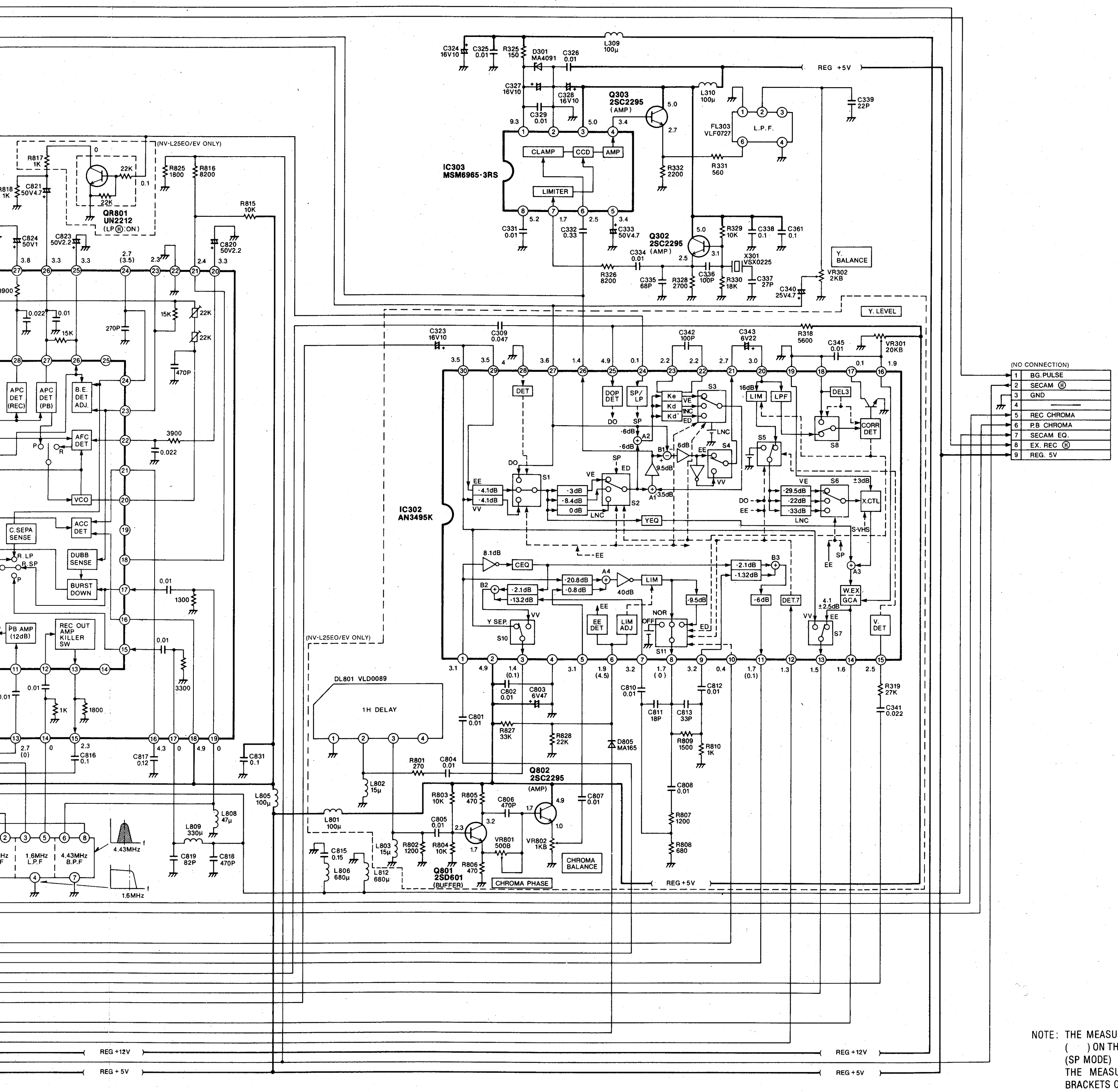
WAVEFORM OF SUB MAIN C.B.A. PINS

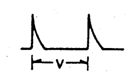
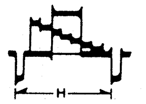
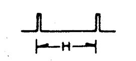
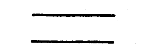
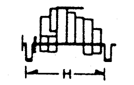
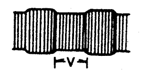
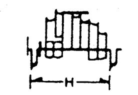
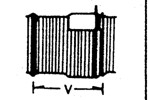
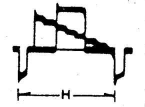
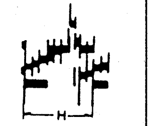
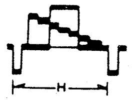
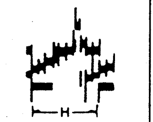
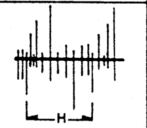
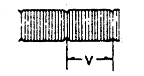
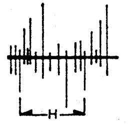
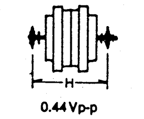
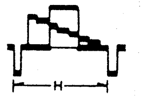
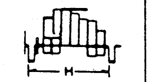
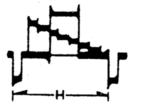
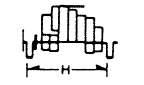
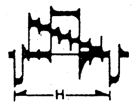
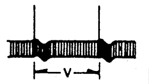
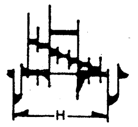
PIN NO.	WAVEFORM	PIN NO.	WAVEFORM
3	 0.23Vp-p (REC/P.B)	20	 0.25Vp-p (P.B)
4	 0.12Vp-p (REC/P.B)	21	 5.0Vp-p (REC/P.B)
5	 2.3Vp-p (REC/P.B)	22	 4.6Vp-p (REC/P.B)
7	 1.0Vp-p (REC/P.B)	26	 0.8Vp-p (REC/P.B)
8	 2.0Vp-p (REC/P.B)	29	 0.4Vp-p (P.B)
9	 4.6Vp-p (REC/P.B)	31	 0.5Vp-p (REC)
10	 1.2Vp-p (REC)	33	 4.6Vp-p (REC/P.B)
14	 5.0Vp-p (REC/P.B)		

NAL SIGNAL IN REC MODE
NAL SIGNAL IN PLAYBACK MODE

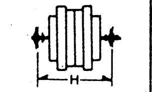
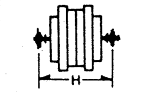
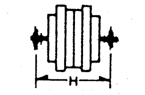
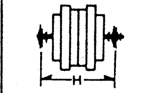
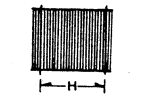
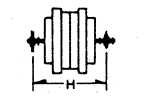
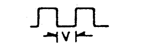
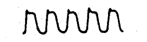
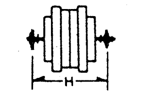
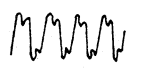
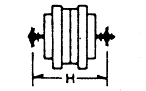
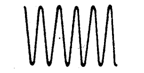
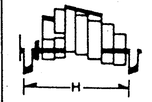
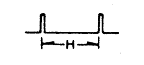
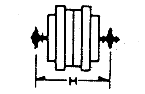
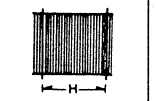
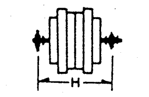
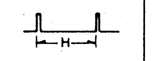
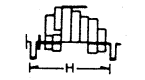
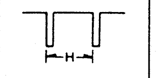
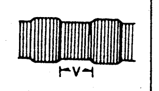
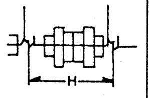
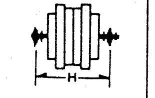
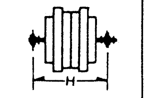

IC303
MSM6965-3RS
CLAMP
CCD
AMP
LIMITER
Q303
2SC2295
(AMP)
Q302
2SC2295
(AMP)
L.P.F.
FL303
VLF0727
X301
VSX0225
Y. BALANCE
Y. LEVEL
REG +5V
IC302
AN3495K
QR801
UN2212
(LP ON)
(NV-L25EO/EV ONLY)
DL801 VLD0089
1H DELAY
Q802
2SC2295
(AMP)
Q801
2SD601
(BUFFER)
CHROMA BALANCE
CHROMA PHASE
(NO CONNECTION)
1 BG.PULSE
2 SECAM
3 GND
4
5 REC CHROMA
6 P.B CHROMA
7 SECAM EQ.
8 EX. REC
9 REG. 5V
REG +12V
REG +5V
13
14
15
16
17
18
19
20
21

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL. (SP MODE)
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL. (SP MODE)

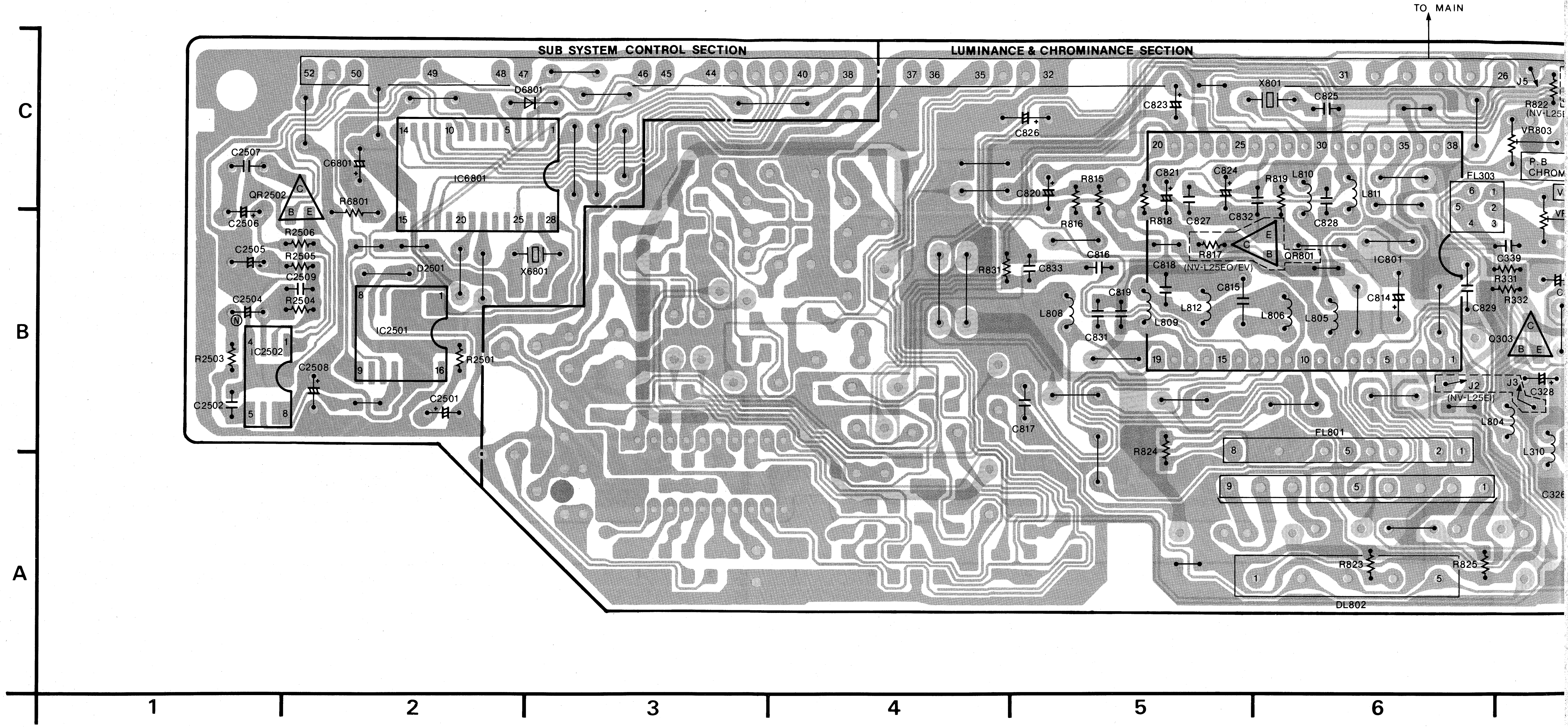
IC301 (VEFH03D)

PIN NO.	WAVEFORM	PIN NO.	WAVEFORM
1	 2.0Vp-p (REC/P.B)	17	 0.9Vp-p (REC/P.B)
2	 4.8Vp-p (REC/P.B)	22	 1.2Vp-p (REC)
3	 1.0Vp-p (REC/P.B)	23	 0.25Vp-p (P.B)
5	 0.9Vp-p (REC)	26	 0.9Vp-p (P.B)
5	 1.2Vp-p (P.B)	28	 0.5Vp-p (P.B)
7, 8	 0.46Vp-p (REC) 0.5Vp-p (P.B)	30	 1.5Vp-p (P.B)
9	 0.66Vp-p (REC)	33	 0.26Vp-p (P.B)
10	 0.6Vp-p (REC)	35	 0.44Vp-p (P.B)
11, 12	 0.3Vp-p (REC) 0.34Vp-p (P.B)	37, 38	 0.9Vp-p (REC/P.B)
13	 1.0Vp-p (REC/P.B)	40	 2.3Vp-p (REC/P.B)
15	 0.9Vp-p (REC/P.B)	41	 0.5Vp-p (REC) 0.56Vp-p (P.B)
16	 0.7Vp-p (REC/P.B)		

IC801 (VEFH04A)

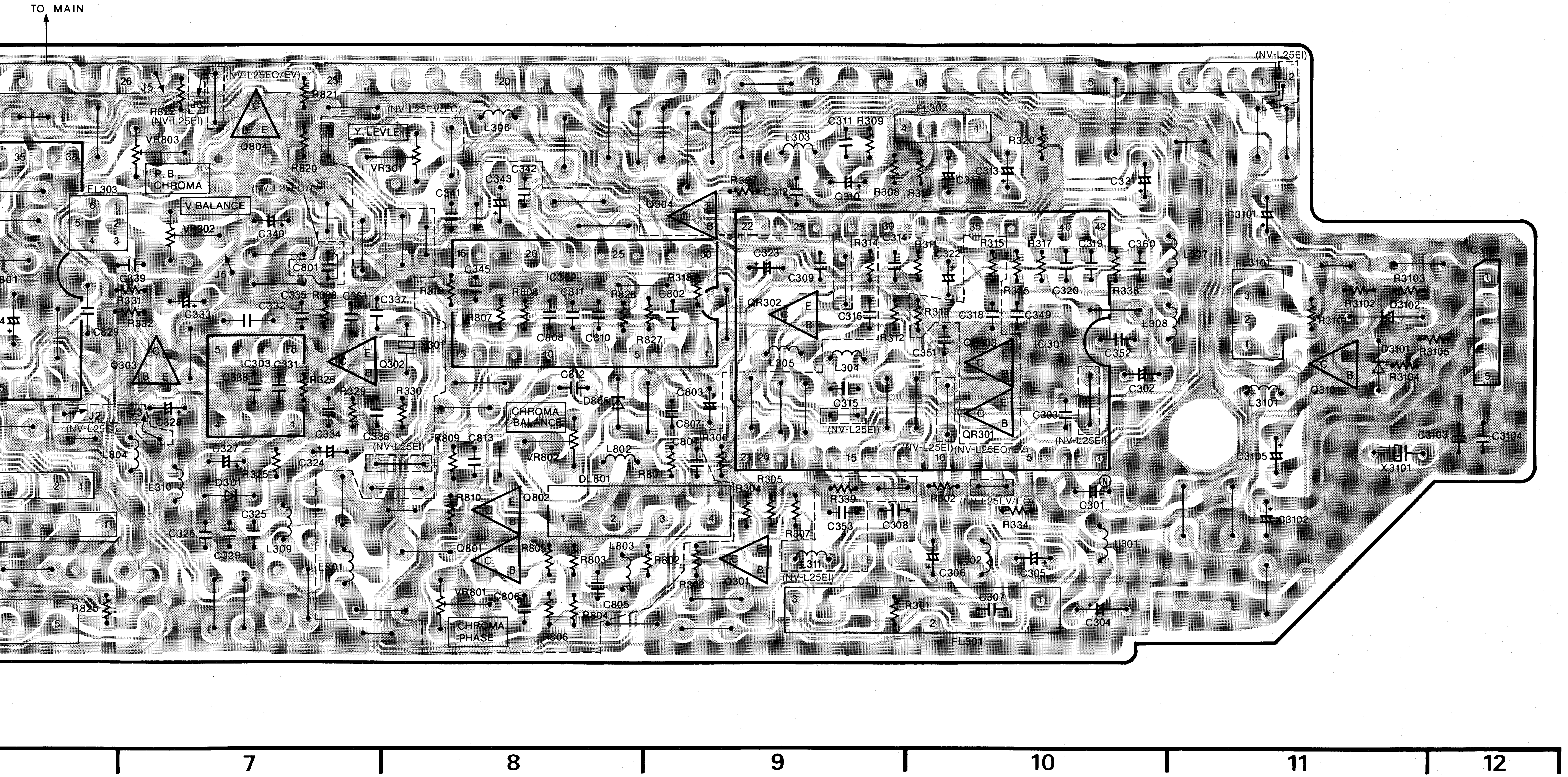
PIN NO.	WAVEFORM	PIN NO.	WAVEFORM
2	 0.16Vp-p (REC) 0.12Vp-p (P.B)	15	 0.48Vp-p (REC)
3	 0.9Vp-p (REC) 0.7Vp-p (P.B)	17	 0.44Vp-p (REC/P.B)
5	 0.2Vp-p (REC) 0.25Vp-p(P.B)	19	 0.3Vp-p (REC) 0.2Vp-p (P.B)
6	 5.0Vp-p (REC/P.B)	28	 0.8Vp-p (REC/P.B)
7	 0.6Vp-p (REC) 0.38Vp-p (P.B)	29	 1.1Vp-p (REC/P.B)
9	 0.36Vp-p (REC) 0.38Vp-p (P.B)	31	 0.76Vp-p (REC/P.B)
10	 1.1Vp-p (REC)	32	 4.8Vp-p (REC/P.B)
10	 0.74Vp-p (P.B)	33	 1.0Vp-p (REC/P.B)
11	 0.38Vp-p (REC/P.B)	34	 5.0Vp-p (REC/P.B)
12	 1.0Vp-p (REC/P.B)	35	 5.0Vp-p (REC/P.B)
13	 0.4Vp-p (P.B)	37	 0.38Vp-p (P.B)
14	 0.32Vp-p (REC/P.B)	38	 1.0Vp-p (P.B)

8. SUB MAIN C.B.A. (VEP03590D: NV-L25EV/EO) (VEP03590S: NV-L25EI)

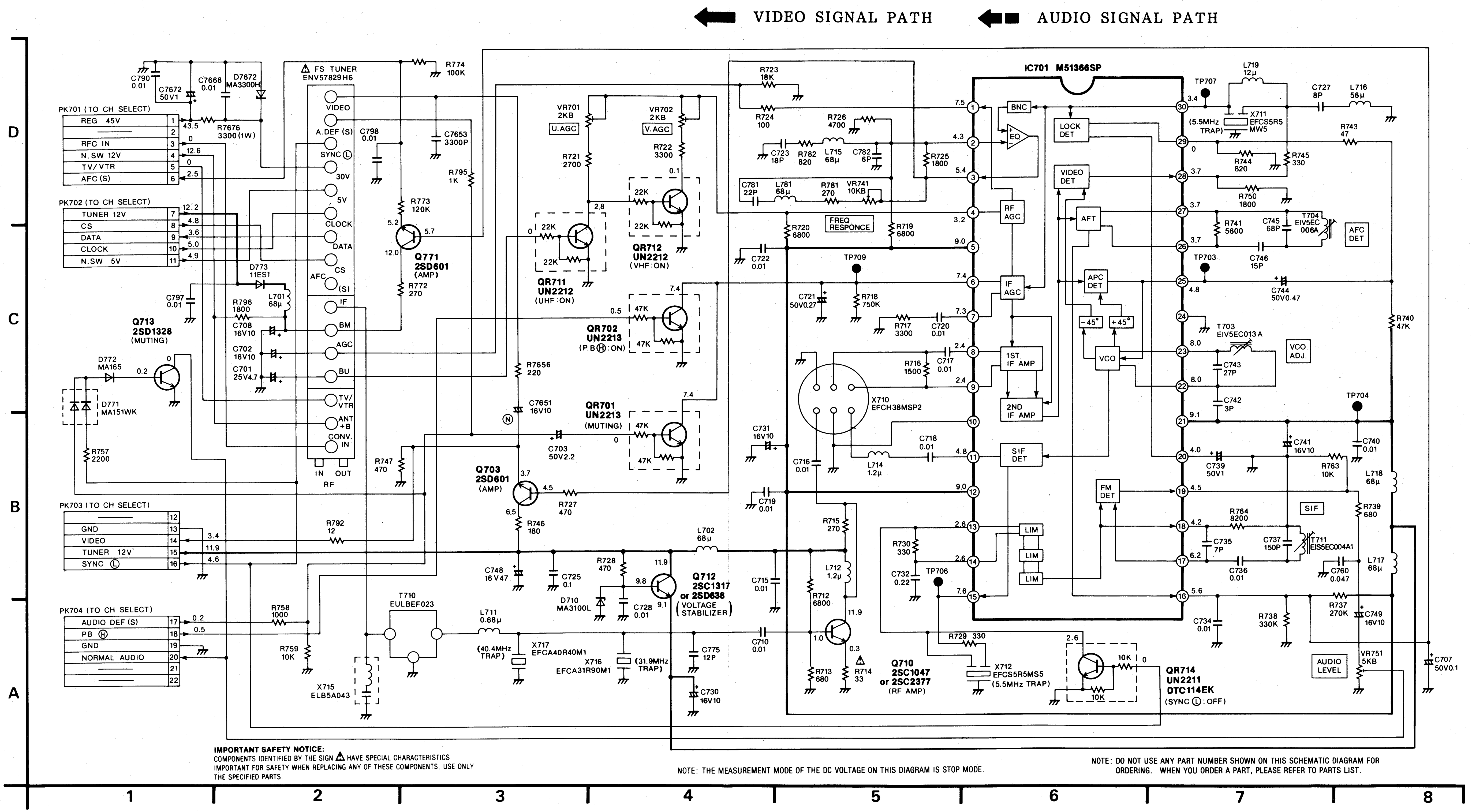

TO MAIN
SUB SYSTEM CONTROL SECTION
LUMINANCE & CHROMINANCE SECTION
52
50
49
48
47
46
45
44
40
38
37
36
35
32
31
26
D6801
IC6801
C6801
R6801
X6801
C2507
QR2502
C2506
C2505
R2506
R2505
C2509
R2504
C2504
R2503
IC2502
C2502
C2508
IC2501
D2501
R2501
C2501
C823
X801
C825
C826
J5
R822
(NV-L25E
VR803
P.B CHROM
C820
R815
R816
C821
C824
R819
L810
L811
FL303
R818
C827
C832
C828
R817
(NV-L25EO/EV)
QR801
IC801
C339
R331
R332
R831
C833
C816
C818
C815
C814
C829
Q303
L808
C819
L812
L806
L805
L809
C831
J2
(NV-L25EI)
J3
C328
C817
L804
R824
FL801
L310
C326
R823
R825
DL802
C
B
A
1
2
3
4
5
6

SUB MAIN C.B.A.	
Transistor	
Q301	A-9
Q302	B-7
Q303	B-7
Q304	C-9
Q804	C-7
Q3101	B-11
Integrated Circuit	
IC301	B-10
IC303	B-7
IC801	B-6
IC851	A-1
IC3101	B-12
Adjustment	
T851	A-2
VR302	C-7
VR803	C-7

ADDRESS INFORMATION


TO MAIN
IC301
IC302
IC303
IC3101
Q301
Q302
Q303
Q304
Q801
Q802
Q804
Q3101
QR301
QR302
QR303
FL301
FL302
FL303
FL3101
Y. LEVLE
P.B CHROMA
V.BALANCE
CHROMA BALANCE
CHROMA PHASE
VR301
VR302
VR801
VR802
VR803
DL801
D301
D805
D3101
D3102
X301
X3101
(NV-L25EO/EV)
(NV-L25EI)
(NV-L25EV/EO)
J2
J3
J5
L301
L302
L303
L304
L305
L306
L307
L308
L309
L310
L311
L801
L802
L803
L804
L3101
R301
R302
R303
R304
R305
R306
R307
R308
R309
R310
R311
R312
R313
R314
R315
R317
R318
R319
R320
R325
R326
R327
R328
R329
R330
R331
R332
R334
R335
R338
R339
R801
R802
R803
R804
R805
R806
R807
R808
R809
R810
R820
R821
R822
R825
R827
R828
R3101
R3102
R3103
R3104
R3105
C301
C302
C303
C304
C305
C306
C307
C308
C309
C310
C311
C312
C313
C314
C315
C316
C317
C318
C319
C320
C321
C322
C323
C324
C325
C326
C327
C328
C329
C331
C332
C333
C334
C335
C336
C337
C338
C339
C340
C341
C342
C343
C345
C349
C351
C352
C353
C360
C361
C801
C802
C803
C804
C805
C806
C807
C808
C810
C811
C812
C813
C829
C3101
C3102
C3103
C3104
C3105
7
8
9
10
11
12

9. TV DEMODULATOR PACK SCHEMATIC DIAGRAM

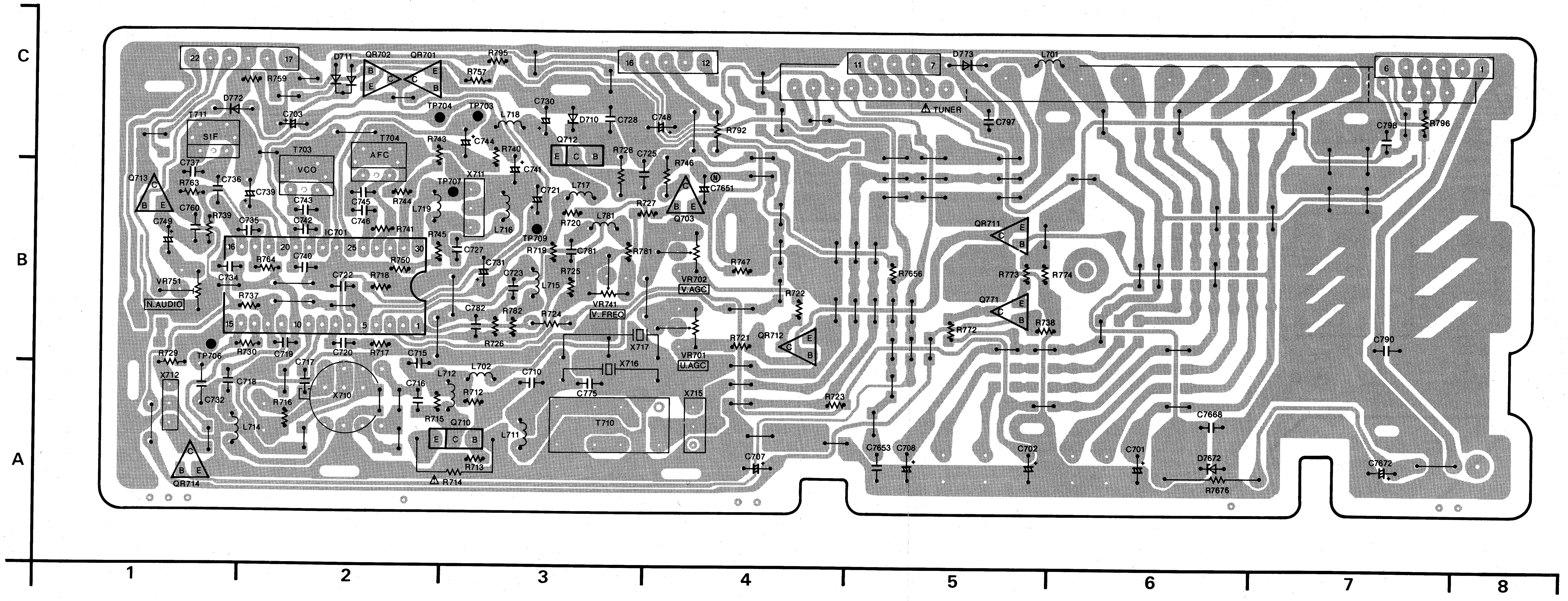

VIDEO SIGNAL PATH
AUDIO SIGNAL PATH
PK701 (TO CH SELECT)
REG 45V
RFC IN
N.SW 12V
TV/VTR
AFC (S)
PK702 (TO CH SELECT)
TUNER 12V
CS
DATA
CLOCK
N.SW 5V
PK703 (TO CH SELECT)
GND
VIDEO
TUNER 12V
SYNC Ⓛ
PK704 (TO CH SELECT)
AUDIO DEF (S)
PB Ⓗ
GND
NORMAL AUDIO
C790 0.01
C7672 50V1
C7668 0.01
D7672 MA3300H
R7676 3300 (1W)
FS TUNER ENV57829H6
VIDEO
A.DEF (S)
SYNC Ⓛ
30V
5V
CLOCK
DATA
CS
AFC (S)
IF
BM
AGC
BU
TV/VTR
ANT +B
CONV. IN
IN OUT RF
C798 0.01
C7653 3300P
R774 100K
R795 1K
R773 120K
Q771 2SD601 (AMP)
R772 270
C797 0.01
Q713 2SD1328 (MUTING)
D772 MA165
D771 MA151WK
R757 2200
D773 11ES1
L701 68µ
R796 1800
C708 16V10
C702 16V10
C701 25V4.7
R747 470
R7656 220
C7651 16V10
C703 50V2.2
Q703 2SD601 (AMP)
R727 470
R746 180
R792 12
R758 1000
R759 10K
T710 EULBEF023
X715 ELB5A043
C748 16V47
C725 0.1
D710 MA3100L
R728 470
C728 0.01
Q712 2SC1317 or 2SD638 (VOLTAGE STABILIZER)
L711 0.68µ
(40.4MHz TRAP)
X717 EFCA40R40M1
X716 EFCA31R90M1
(31.9MHz TRAP)
C775 12P
C730 16V10
L702 68µ
C715 0.01
C710 0.01
VR701 2KB
U.AGC
R721 2700
VR702 2KB
V.AGC
R722 3300
QR711 UN2212 (UHF:ON)
QR712 UN2212 (VHF:ON)
QR702 UN2213 (P.BⒽ:ON)
QR701 UN2213 (MUTING)
22K
47K
R723 18K
R724 100
R726 4700
C723 18P
R782 820
L715 68µ
C782 6P
R725 1800
C781 22P
L781 68µ
R781 270
VR741 10KB
FREQ. RESPONCE
R720 6800
R719 6800
C722 0.01
TP709
C721 50V0.27
R718 750K
R717 3300
C720 0.01
R716 1500
C717 0.01
X710 EFCH38MSP2
C731 16V10
C718 0.01
C716 0.01
L714 1.2µ
C719 0.01
R715 270
L712 1.2µ
R712 6800
R730 330
C732 0.22
TP706
R713 680
R714 33
Q710 2SC1047 or 2SC2377 (RF AMP)
R729 330
X712 EFCS5R5MS5 (5.5MHz TRAP)
QR714 UN2211 DTC114EK (SYNC Ⓛ:OFF)
10K
IC701 M51366SP
BNC
EQ
LOCK DET
VIDEO DET
RF AGC
AFT
IF AGC
APC DET
-45°
+45°
VCO
1ST IF AMP
2ND IF AMP
SIF DET
FM DET
LIM
L719 12µ
TP707
C727 8P
L716 56µ
X711 EFCS5R5MW5
(5.5MHz TRAP)
R743 47
R744 820
R745 330
R750 1800
R741 5600
C745 68P
T704 EIV5EC006A
AFC DET
C746 15P
TP703
C744 50V0.47
T703 EIV5EC013A
VCO ADJ.
C743 27P
C742 3P
TP704
R740 47K
C741 16V10
C740 0.01
R763 10K
C739 50V1
L718 68µ
R764 8200
SIF
R739 680
C735 7P
C737 150P
T711 EIS5EC004A1
C736 0.01
C760 0.047
L717 68µ
C734 0.01
R738 330K
R737 270K
C749 16V10
AUDIO LEVEL
VR751 5KB
C707 50V0.1
D
C
B
A
1
2
3
4
5
6
7
8

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED BY THE SIGN ⚠ HAVE SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY WHEN REPLACING ANY OF THESE COMPONENTS. USE ONLY THE SPECIFIED PARTS.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

10. TV DEMODULATOR PACK C.B.A. (VEP07536D: NV-L25EV/EO) (VEP07536C: NV-L25EI)


C
B
A
1
2
3
4
5
6
7
8
SIF
VCO
AFC
IC701
TUNER
N.AUDIO
V.AGC
V.FREQ
U.AGC
Q703
Q710
Q712
Q713
Q771
QR701
QR702
QR711
QR712
QR714
TP703
TP704
TP706
TP707
TP709
T703
T704
T710
T711
VR701
VR702
VR741
VR751
X710
X711
X712
X715
X716
X717
D710
D711
D772
D773
D7672
L701
L702
L711
L712
L714
L715
L716
L717
L718
L719
L781

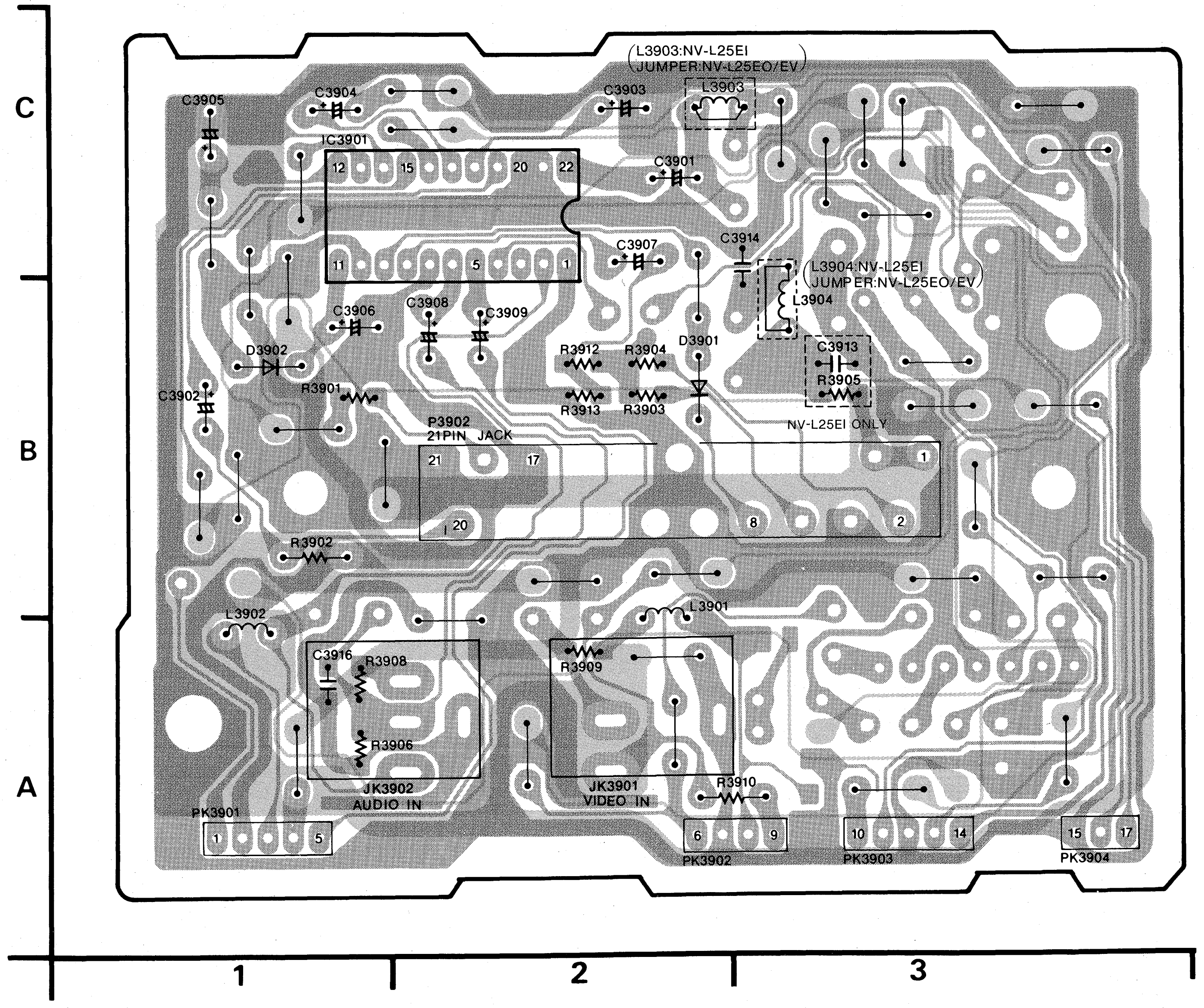
TV DEMODULATOR PACK C.B.A.			
Transistor		**Test Point**	
Q703	B-4	TP703	C-3
Q710	A-3	TP704	C-2
Q712	C-3	TP706	B-1
Q713	B-1	TP707	B-3
Q771	B-5	TP709	B-3
Transistor & Resistor		**Adjustment**	
QR701	C-2	T703	B-2
QR702	C-2	T704	C-2
QR711	B-5	T710	A-3
QR712	B-4	T711	C-1
QR714	A-1	VR701	B-4
Integrated Circuit		VR702	B-4
IC701	B-2	VR741	B-3
		VR751	B-1

ADDRESS INFORMATION

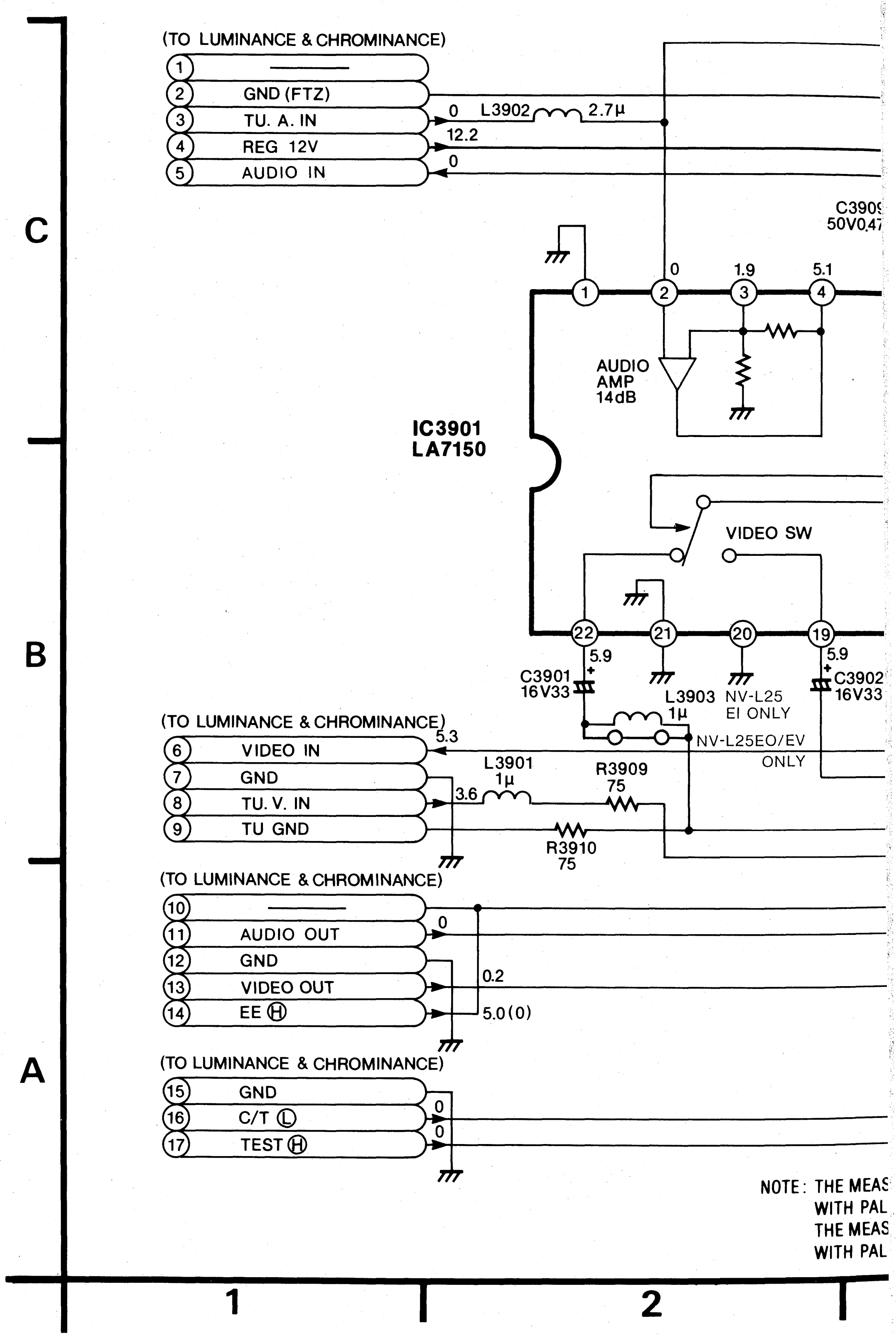
11. INPUT/OUTPUT PACK C.B.A. (VEP03594D)

I/O PACK C.B.A.	
Integrated Circuit	
IC3901	C-1
Connector	
P3902	B-3
PK3901	A-1
PK3902	A-2
PK3903	A-3
PK3904	A-4

ADDRESS INFORMATION

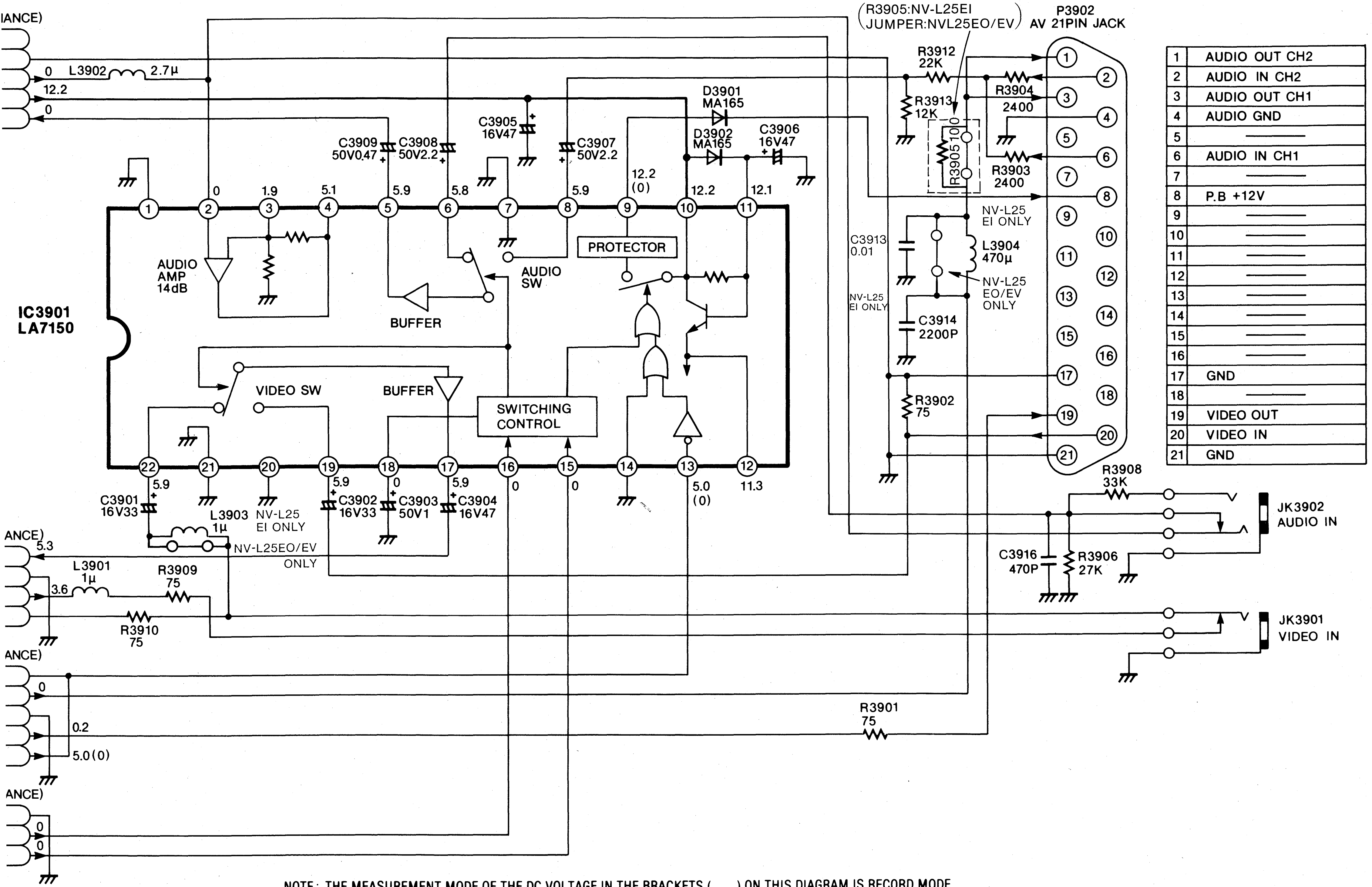

C
B
A
1
2
3
C3905
C3904
IC3901
12
15
20
22
11
5
1
C3903
L3903:NV-L25EI
JUMPER:NV-L25EO/EV
L3903
C3901
C3907
C3914
L3904:NV-L25EI
JUMPER:NV-L25EO/EV
L3904
C3906
C3908
C3909
D3902
C3902
R3901
R3912
R3904
R3913
R3903
D3901
C3913
R3905
NV-L25EI ONLY
P3902
21PIN JACK
21
17
1
20
8
2
R3902
L3902
C3916
R3908
R3906
JK3902
AUDIO IN
R3909
L3901
JK3901
VIDEO IN
R3910
PK3901
1
5
PK3902
6
9
PK3903
10
14
PK3904
15
17

12. INPUT/OUTPUT PACK SCHEMATIC DIAGRAM


C
B
A
1
2
(TO LUMINANCE & CHROMINANCE)
① —
② GND (FTZ)
③ TU. A. IN
④ REG 12V
⑤ AUDIO IN
0
L3902
2.7μ
12.2
0
C390
50V0.47
0
1.9
5.1
①
②
③
④
AUDIO AMP 14dB
IC3901
LA7150
VIDEO SW
㉒
㉑
⑳
⑲
5.9
5.9
C3901
16V33
C3902
16V33
L3903
1μ
NV-L25 EI ONLY
NV-L25EO/EV ONLY
(TO LUMINANCE & CHROMINANCE)
5.3
⑥ VIDEO IN
⑦ GND
⑧ TU. V. IN
⑨ TU GND
L3901
1μ
3.6
R3909
75
R3910
75
(TO LUMINANCE & CHROMINANCE)
⑩ —
⑪ AUDIO OUT
⑫ GND
⑬ VIDEO OUT
⑭ EE Ⓗ
0
0.2
5.0(0)
(TO LUMINANCE & CHROMINANCE)
⑮ GND
⑯ C/T Ⓛ
⑰ TEST Ⓗ
0
0
NOTE: THE MEAS
WITH PAL
THE MEAS
WITH PAL

SCHEMATIC DIAGRAM

⬅ VIDEO MAIN SIGNAL PATH IN REC MODE
⇦ VIDEO MAIN SIGNAL PATH IN PLAYBACK MODE
⬅■ AUDIO MAIN SIGNAL PATH IN REC MODE
⇦□ AUDIO MAIN SIGNAL PATH IN PLAYBACK MODE



IANCE)
L3902
2.7µ
0
12.2
0
(R3905:NV-L25EI
JUMPER:NVL25EO/EV)
P3902
AV 21PIN JACK
R3912
22K
R3904
2400
R3913
12K
R3905 100
R3903
2400
D3901
MA165
D3902
MA165
C3906
16V47
C3905
16V47
C3909
50V0.47
C3908
50V2.2
C3907
50V2.2
0
1.9
5.1
5.9
5.8
5.9
12.2
(0)
12.2
12.1
AUDIO AMP 14dB
AUDIO SW
PROTECTOR
BUFFER
IC3901
LA7150
VIDEO SW
BUFFER
SWITCHING CONTROL
C3913
0.01
NV-L25
EI ONLY
L3904
470µ
NV-L25
EO/EV
ONLY
NV-L25
EI ONLY
C3914
2200P
R3902
75
5.9
5.9
0
5.9
0
0
5.0
(0)
11.3
C3901
16V33
L3903
1µ
NV-L25
EI ONLY
C3902
16V33
C3903
50V1
C3904
16V47
ANCE)
5.3
NV-L25EO/EV
ONLY
L3901
1µ
3.6
R3909
75
R3910
75
R3908
33K
JK3902
AUDIO IN
C3916
470P
R3906
27K
JK3901
VIDEO IN
ANCE)
0
0.2
5.0(0)
R3901
75
ANCE)
0
0

1	AUDIO OUT CH2
2	AUDIO IN CH2
3	AUDIO OUT CH1
4	AUDIO GND
5	———
6	AUDIO IN CH1
7	———
8	P.B +12V
9	———
10	———
11	———
12	———
13	———
14	———
15	———
16	———
17	GND
18	———
19	VIDEO OUT
20	VIDEO IN
21	GND

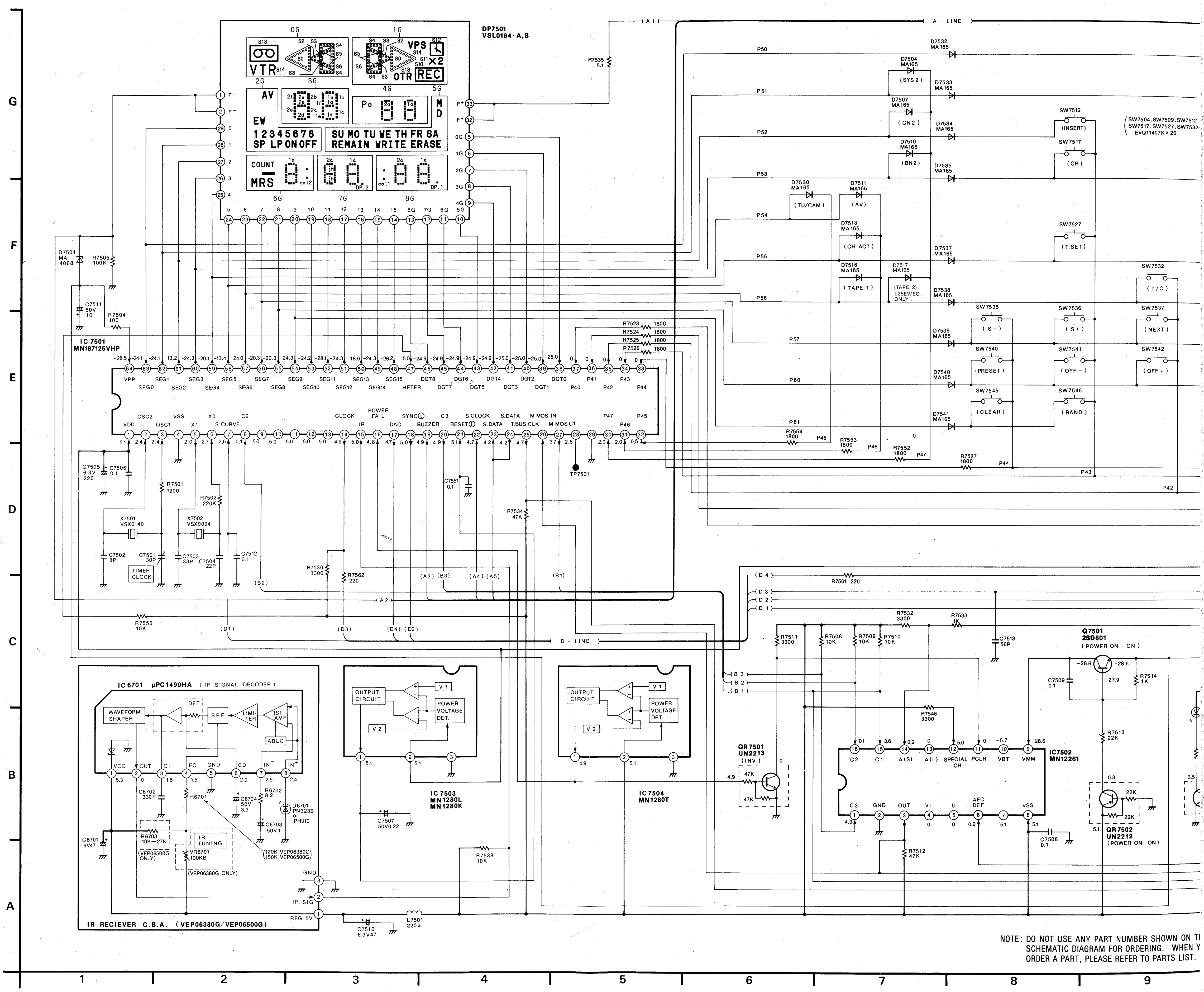
NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS (   ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL. (SP MODE)
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL. (SP MODE)

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

2 3 4 5

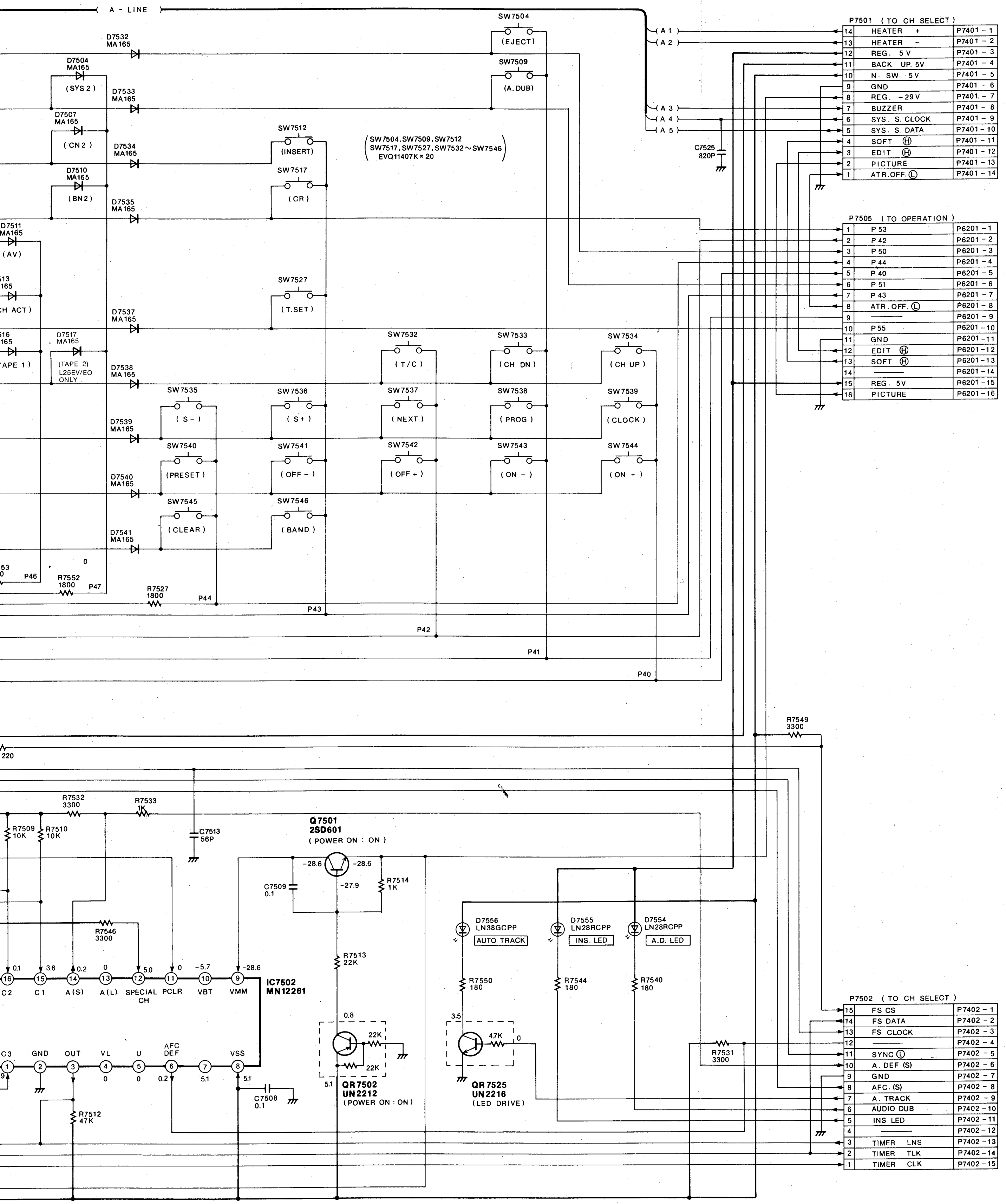
13. TIMER SCHEMATIC DIAGRAM

SEGMENT CONTROL SIGNAL GRID CONTROL SIGNAL TUNE (


DP7501
VSL0164·A,B
VTR
OTR
REC
VPS
AV
EW
12345678
SP LP ON OFF
SU MO TU WE TH FR SA
REMAIN WRITE ERASE
COUNT
MRS
IC 7501
MN187125VHP
VPP
SEG0
SEG1
SEG2
SEG3
SEG4
SEG5
SEG6
SEG7
SEG8
SEG9
SEG10
SEG11
SEG12
SEG13
SEG14
SEG15
HETER
DGT0
DGT1
DGT2
DGT3
DGT4
DGT5
DGT6
DGT7
DGT8
VDD
OSC1
OSC2
VSS
X0
X1
S·CURVE
C2
CLOCK
POWER FAIL
IR
DAC
SYNC
BUZZER
C3
RESET
S.CLOCK
S.DATA
T.BUS CLK
M MOS IN
M MOS C1
TP7501
TIMER CLOCK
X7501
VSX0140
X7502
VSX0094
A - LINE
D - LINE
(TU/CAM)
(AV)
(CH ACT)
(TAPE 1)
(TAPE 2)
L25EV/EO ONLY
(SYS 2)
(CN 2)
(BN 2)
(INSERT)
(CR)
(T.SET)
(T/C)
(S -)
(S +)
(NEXT)
(PRESET)
(OFF -)
(OFF +)
(CLEAR)
(BAND)
SW7504, SW7509, SW7512
SW7517, SW7527, SW7532
EVQ11407K × 20
IC 6701 μPC1490HA (IR SIGNAL DECODER)
WAVEFORM SHAPER
DET
BPF
LIMI-TER
1ST AMP
ABLC
IR TUNING
(VEP06500G ONLY)
(VEP06380G ONLY)
(120K: VEP06380G)
(150K: VEP06500G)
IR RECIEVER C.B.A. (VEP06380G/VEP06500G)
GND
IR. SIG
REG 5V
OUTPUT CIRCUIT
POWER VOLTAGE DET.
IC 7503
MN1280L
MN1280K
IC 7504
MN1280T
QR7501
UN2213
(INV.)
IC7502
MN12261
C2
C1
A (S)
A (L)
SPECIAL CH
PCLR
VBT
VMM
C3
GND
OUT
VL
U
AFC DEF
VSS
Q7501
2SD601
(POWER ON : ON)
QR7502
UN2212
(POWER ON : ON)

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON T
SCHEMATIC DIAGRAM FOR ORDERING. WHEN Y
ORDER A PART, PLEASE REFER TO PARTS LIST.

GRID CONTROL SIGNAL ⬅ TUNE CONTROL SIGNAL

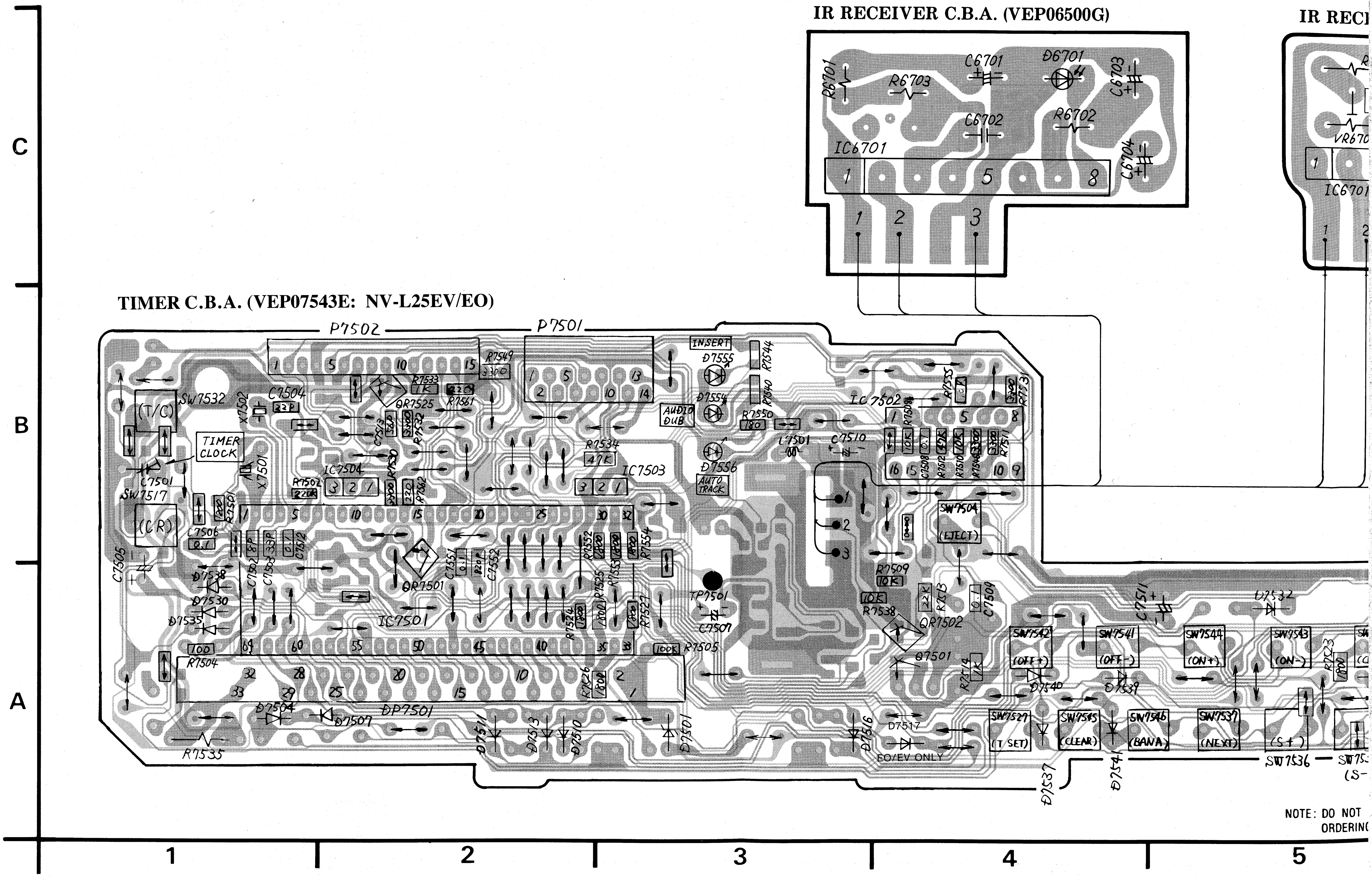

A - LINE
SW7504
(EJECT)
SW7509
(A. DUB)
D7532
MA165
D7504
MA165
(SYS 2)
D7533
MA165
D7507
MA165
(CN2)
D7534
MA165
SW7512
(INSERT)
SW7517
(CR)
(SW7504, SW7509, SW7512
SW7517, SW7527, SW7532～SW7546
EVQ11407K×20)
D7510
MA165
(BN2)
D7535
MA165
D7511
MA165
(AV)
SW7527
(T.SET)
D7537
MA165
(TAPE 1)
D7517
MA165
(TAPE 2)
L25EV/EO
ONLY
D7538
MA165
SW7532
(T/C)
SW7533
(CH DN)
SW7534
(CH UP)
SW7535
(S-)
SW7536
(S+)
SW7537
(NEXT)
SW7538
(PROG)
SW7539
(CLOCK)
D7539
MA165
SW7540
(PRESET)
SW7541
(OFF -)
SW7542
(OFF +)
SW7543
(ON -)
SW7544
(ON +)
D7540
MA165
SW7545
(CLEAR)
SW7546
(BAND)
D7541
MA165
P46
R7552
1800
P47
R7527
1800
P44
P43
P42
P41
P40
A1
A2
A3
A4
A5
C7525
820P
P7501 (TO CH SELECT)
14 HEATER + P7401 - 1
13 HEATER - P7401 - 2
12 REG. 5V P7401 - 3
11 BACK UP. 5V P7401 - 4
10 N. SW. 5V P7401 - 5
9 GND P7401 - 6
8 REG. -29V P7401 - 7
7 BUZZER P7401 - 8
6 SYS. S. CLOCK P7401 - 9
5 SYS. S. DATA P7401 - 10
4 SOFT Ⓗ P7401 - 11
3 EDIT Ⓗ P7401 - 12
2 PICTURE P7401 - 13
1 ATR.OFF. Ⓛ P7401 - 14
P7505 (TO OPERATION)
1 P 53 P6201 - 1
2 P 42 P6201 - 2
3 P 50 P6201 - 3
4 P 44 P6201 - 4
5 P 40 P6201 - 5
6 P 51 P6201 - 6
7 P 43 P6201 - 7
8 ATR. OFF. Ⓛ P6201 - 8
9 ——— P6201 - 9
10 P 55 P6201 - 10
11 GND P6201 - 11
12 EDIT Ⓗ P6201 - 12
13 SOFT Ⓗ P6201 - 13
14 ——— P6201 - 14
15 REG. 5V P6201 - 15
16 PICTURE P6201 - 16
R7549
3300
220
R7532
3300
R7533
1K
C7513
56P
R7509
10K
R7510
10K
Q7501
2SD601
(POWER ON : ON)
-28.6
-28.6
-27.9
C7509
0.1
R7514
1K
R7546
3300
R7513
22K
D7556
LN38GCPP
AUTO TRACK
D7555
LN28RCPP
INS. LED
D7554
LN28RCPP
A.D. LED
R7550
180
R7544
180
R7540
180
0.1
3.6
0.2
0
5.0
0
-5.7
-28.6
16 15 14 13 12 11 10 9
C2
C1
A(S)
A(L)
SPECIAL CH
PCLR
VBT
VMM
IC7502
MN12261
0.8
22K
22K
5.1
QR7502
UN2212
(POWER ON : ON)
3.5
47K
0
QR7525
UN2216
(LED DRIVE)
R7531
3300
C3
GND
OUT
VL
U
AFC DEF
VSS
1 2 3 4 5 6 7 8
0
0
0.2
5.1
5.1
C7508
0.1
R7512
47K
P7502 (TO CH SELECT)
15 FS CS P7402 - 1
14 FS DATA P7402 - 2
13 FS CLOCK P7402 - 3
12 ——— P7402 - 4
11 SYNC Ⓛ P7402 - 5
10 A. DEF (S) P7402 - 6
9 GND P7402 - 7
8 AFC. (S) P7402 - 8
7 A. TRACK P7402 - 9
6 AUDIO DUB P7402 - 10
5 INS LED P7402 - 11
4 ——— P7402 - 12
3 TIMER LNS P7402 - 13
2 TIMER TLK P7402 - 14
1 TIMER CLK P7402 - 15

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

7 | 8 | 9 | 10 | 11 | 12

14. TIMER C.B.A. (VEP07543E: NV-L25EV/EO)



IR RECEIVER C.B.A. (VEP06500G)

IR RECI

TIMER C.B.A. (VEP07543E: NV-L25EV/EO)

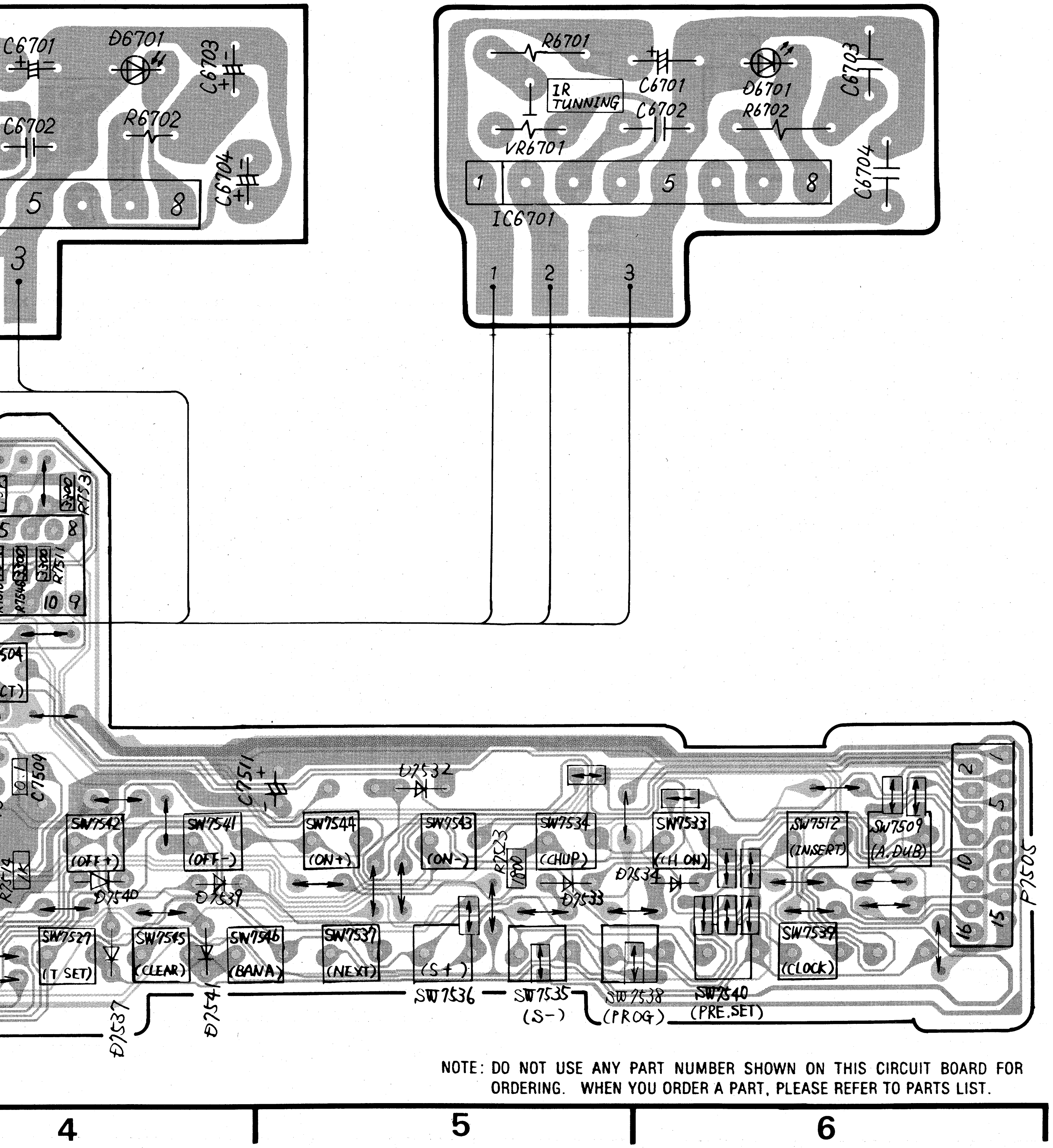
NOTE: DO NOT

ORDERIN

C
B
A
1
2
3
4
5
R6701
R6703
C6701
D6701
C6703
C6702
R6702
IC6701
C6704
VR670
IC670
P7502
P7501
SW7532
(T/C)
X7502
C7504
R7533
R7549
QR7525
R7561
TIMER CLOCK
X7501
C7513
R7532
R7530
IC7504
R7502
R7562
C7501
SW7517
(CR)
C7506
R7501
C7505
D7538
D7530
D7535
R7504
C7351
C7352
QR7501
IC7501
R7534
IC7503
R7552
R7525
R7555
R7524
R7554
R7527
R7526
DP7501
D7504
D7507
R7535
D7511
D7513
D7510
D7501
INSERT
D7555
R7544
D7554
R7540
AUDIO DUB
R7550
L7501
C7510
D7556
AUTO TRACK
IC7502
R7508
R7555
R7513
R7512
R7510
R7511
C7508
SW7504
(EJECT)
R7509
R7538
R7513
C7509
QR7502
TP7501
C7507
R7505
Q7501
R7514
C7511
D7532
SW7542
(OFF+)
SW7541
(OFF-)
SW7544
(ON+)
SW7543
(ON-)
R7523
D7540
D7539
D7516
D7517
EO/EV ONLY
SW7527
(T SET)
SW7545
(CLEAR)
SW7546
(BANA)
SW7537
(NEXT)
(S+)
SW7536
D7537
D7541

B.A. (VEP06500G)

IR RECEIVER C.B.A. (VEP06380G)

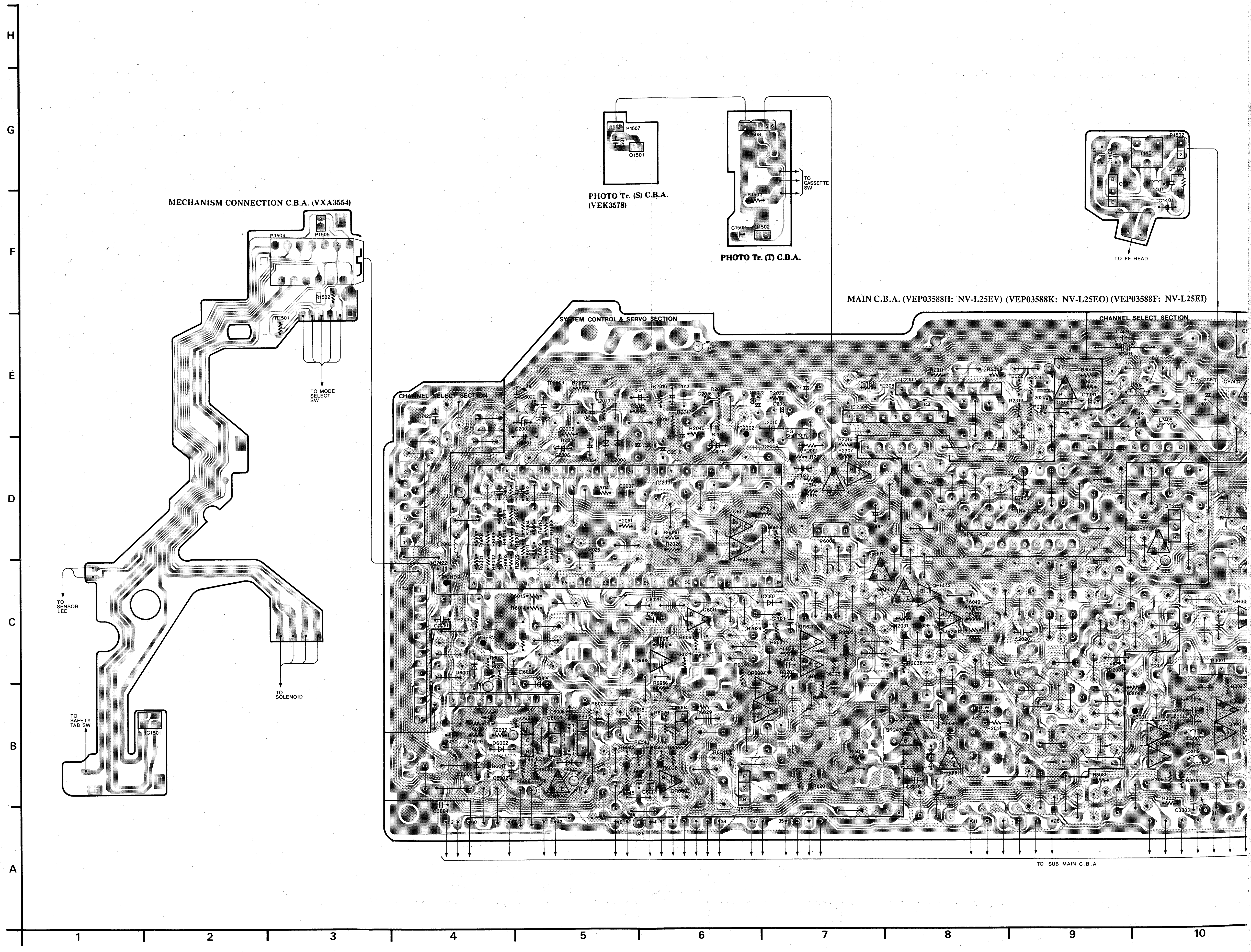

C6701
D6701
C6703
C6702
R6702
C6704
5
8
3
R6701
IR TUNNING
VR6701
C6701
C6702
D6701
R6702
C6703
C6704
1
5
8
IC6701
1
2
3
R7531
R7511
10
9
C7509
C7511
D7532
SW7542 (OFF+)
SW7541 (OFF-)
SW7544 (ON+)
SW7543 (ON-)
R7523
SW7534 (CHUP)
SW7533 (CH ON)
SW7512 (INSERT)
SW7509 (A.DUB)
D7540
D7539
D7533
D7534
SW7527 (T SET)
SW7545 (CLEAR)
SW7546 (BANA)
SW7537 (NEXT)
(S+) SW7536
SW7535 (S-)
SW7538 (PROG)
SW7540 (PRE.SET)
SW7539 (CLOCK)
P7505
2
10
15
16
D7537
D7541
4
5
6

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS CIRCUIT BOARD FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

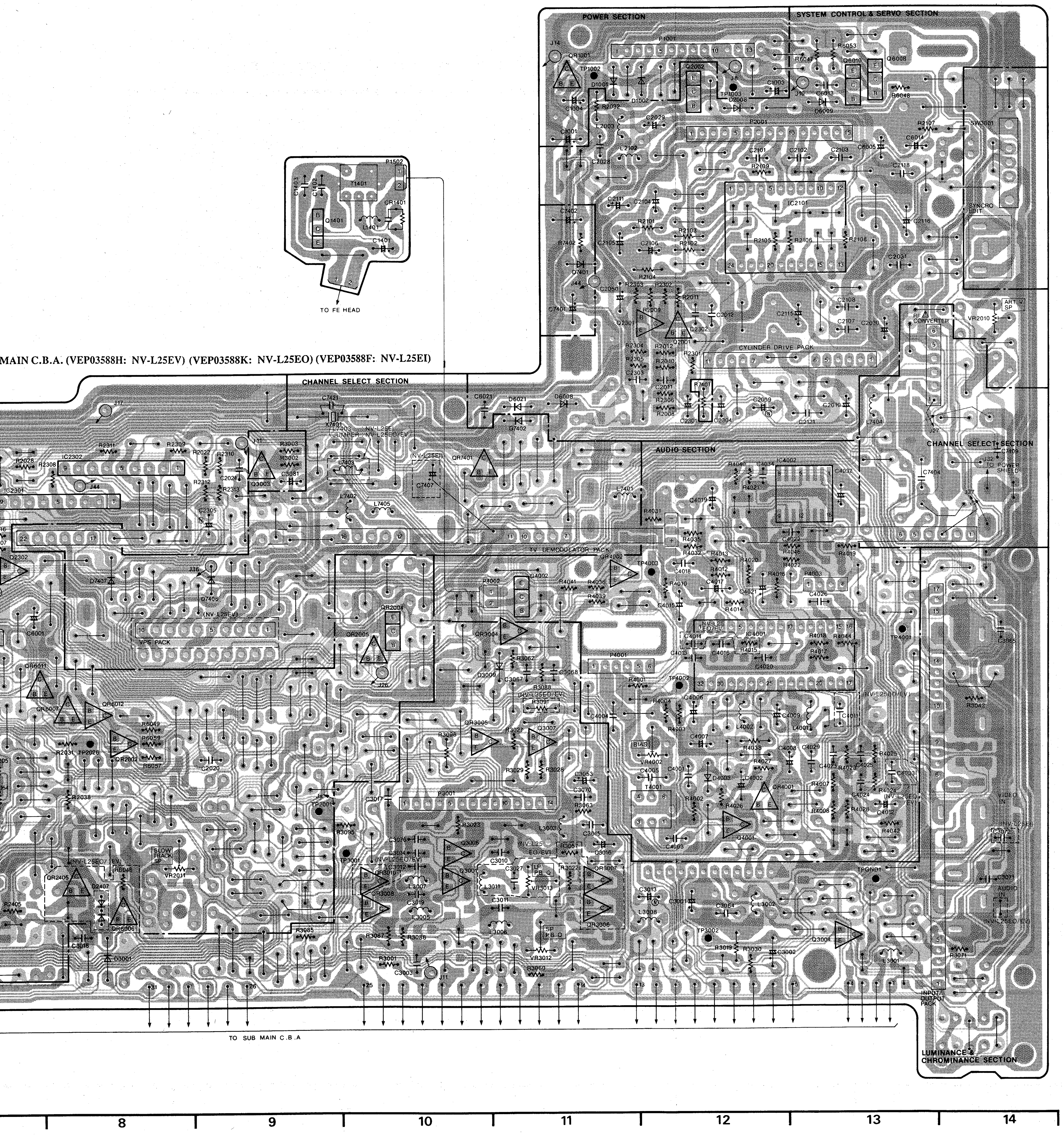
TIMER C.B.A.			
Transistor		**Test Point**	
Q7501	B-4	TP7501	B-4
Transistor & Resistor		**Adjustment**	
QR7501	A-2	C7501	A-3
QR7502	B-4	VR6701	B-5
QR7525	B-2	**Connector**	
Integrated Circuit		P7501	B-2
IC6701	B-5	P7502	B-2
IC7501	B-2	P7505	A-6
IC7502	B-4		
IC7503	B-1		
IC7504	B-2		

ADDRESS INFORMATION

15. MAIN C.B.A. (VEP03588H: NV-L25EV) (VEP03588K: NV-L25EO) (VEP03588F: NV-L25EI)


H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
MECHANISM CONNECTION C.B.A. (VXA3554)
P1504
P1505
R1502
R1501
TO MODE SELECT SW
TO SENSOR LED
TO SOLENOID
TO SAFETY TAB SW
IC1501
P1507
Q1501
PHOTO Tr. (S) C.B.A. (VEK3578)
P1508
TO CASSETTE SW
R1503
C1502
Q1502
PHOTO Tr. (T) C.B.A.
P1502
L1401
CR1401
Q1401
C1401
TO FE HEAD
MAIN C.B.A. (VEP03588H: NV-L25EV) (VEP03588K: NV-L25EO) (VEP03588F: NV-L25EI)
SYSTEM CONTROL & SERVO SECTION
CHANNEL SELECT SECTION
CHANNEL SELECT SECTION
IC2001
IC2301
IC2302
IC6002
P7401
P6002
VPS PACK
TP.GND2
TP.SERV
TP2002
TP2009
SLOW TRACK
VR2001
VR2011
CTL SHIFTER
X7401
J25
J26
TO SUB MAIN C.B.A

MAIN C.B.A. (VEP03588H: NV-L25EV) (VEP03588K: NV-L25EO) (VEP03588F: NV-L25EI)


POWER SECTION
SYSTEM CONTROL & SERVO SECTION
TO FE HEAD
CHANNEL SELECT SECTION
AUDIO SECTION
CYLINDER DRIVE PACK
TV DEMODULATOR PACK
VPS PACK
CHANNEL SELECT SECTION
LUMINANCE & CHROMINANCE SECTION
INPUT/OUTPUT PACK
TO SUB MAIN C.B.A
8
9
10
11
12
13
14

SYSTEM CONTROL & SERVO Section	
Transistor	
Q1501	G-5
Q1502	F-7
Q2001	F-12
Q2002	H-12
Q6001	B-5
Q6002	B-5
Q6003	B-5
Q6004	B-6
Q6006	B-6
Q6007	B-7
Q6008	H-13
Q6010	H-13
Q6011	C-6
Transistor & Resistor	
QR2002	C-8
QR2004	D-10
QR2005	D-10
QR6002	B-5
QR6003	B-6
QR6004	B-7
QR6007	C-8
QR6011	D-7
QR6012	C-8
Integrated Circuit	
IC1501	B-2
IC2001	D-6
IC2101	G-13
IC6002	C-5
IC6003	C-6
Test Point	
TP2001	C-9
TP2002	E-6
TP2009	E-5
TP2026	C-8
TPSERV	C-4
TPGND2	C-4
Adjustment	
VR2001	D-7
VR2010	F-14
Connector	
P1504	F-3
P1505	F-3
P1507	G-5
P1508	G-6
P2001	G-12
P6001	B-5
P6002	D-7

ADDRESS INFORMATION

AUDIO Section	
Transistor	
Q4001	B-12
Transistor & Resistor	
QR4001	C-12
Integrated Circuit	
IC4001	D-12
Test Point	
TP4001	D-13
TP4002	C-12
TP4003	D-12
Adjustment	
VR4002	C-12
Connector	
P4001	D-11

ADDRESS INFORMATION

LUMINANCE & CHROMINANCE Section	
Transistor	
Q3001	B-10
Q3003	E-9
Q3004	B-13
Q3006	B-10
Q3007	C-11
Transistor & Resistor	
QR3004	D-11
QR3008	B-10
Test Point	
TP3001	B-10
TP3002	B-12
Adjustment	
VR3012	B-11
Connector	
P3001	C-10

ADDRESS INFORMATION

CHANNEL SELECT Section	
Transistor & Resistor	
QR7401	E-10
Connector	
P7401	D-4
P7402	C-4

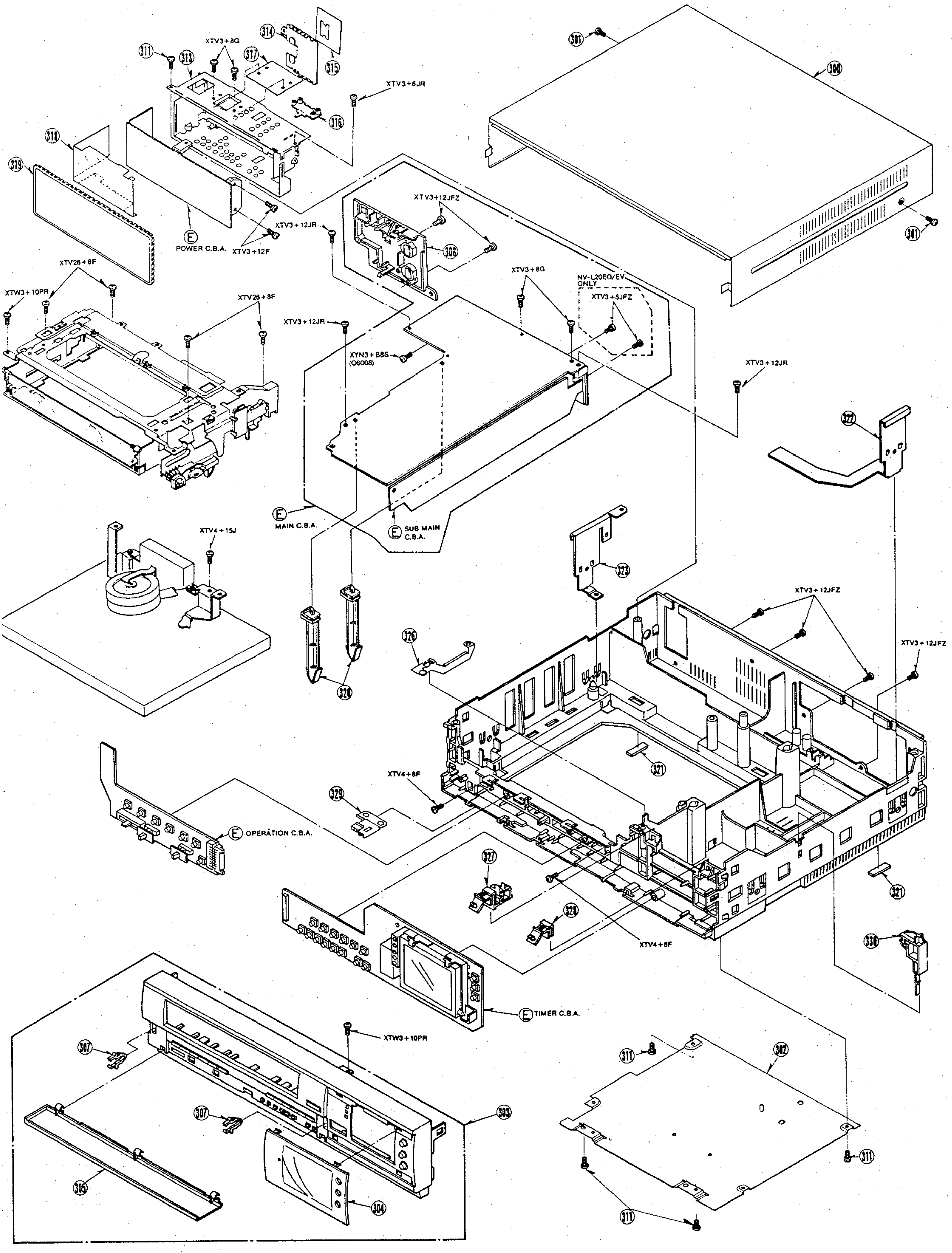
ADDRESS INFORMATION

POWER Section	
Transistor & Resistor	
QR1001	H-11
Test Point	
TP1002	H-11
TP1003	G-12
TPGND1	B-13
Connector	
P1001	H-12

ADDRESS INFORMATION

15. EXAPLODED VIEW

❶ CASING PARTS SECTION


311
313
XTV3+8G
317
314
315
XTV3+8JR
316
318
319
E
POWER C.B.A.
XTV3+12F
XTV3+12JR
XTV3+12JFZ
308
301
306
301
XTV26+8F
XTW3+10PR
XTV26+8F
XTV3+12JR
XYN3+B8S
(Q6008)
XTV3+8G
NV-L20EO/EV
ONLY
XTV3+8JFZ
XTV3+12JR
322
E
MAIN C.B.A.
E
SUB MAIN
C.B.A.
XTV4+15J
323
XTV3+12JFZ
XTV3+12JFZ
326
320
321
XTV4+8F
329
E
OPERATION C.B.A.
327
328
321
XTV4+8F
330
E
TIMER C.B.A.
XTW3+10PR
307
307
305
303
304
311
302
311
311

16. PARTS LIST NV-L25EV/EO/EI
ELECTRICAL REPLACEMENT PARTS LISTS

Note:1.* Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE
Components identified with the mark <!> have the special characteristics for safety. When replacing any of these components,use only the same type.
3. Unless otherwise specified,
All resistors are in OHMS ,K=1,000 OHMS. All capacitors are in MICRO-FARADS(uf),P=uuF.
4. The P.C.Board units marked width'▮'show below the main assembled parts.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
**********		NV-L25EV/EO/			
		EI			
		VEP03588H	MAIN C.B.A.	1	NV-L25EV(NLA)<!>
					INCLUDING THE
					CYLINDER DRIVE PACK
					C.B.A.(VEP02329A),
					SUB MAIN C.B.A.
					(VEP03590D),INPUT/
					OUTPUT PACK C.B.A.
					(VEP03594D),OSC PACK
					C.B.A.(VEP06583A),
					TV DEMODULATOR C.B.A.
					(VEP07536C)
		VEP03588K	MAIN C.B.A.	1	NV-L25EO(NLA)<!>
					[SUPPLIED FROM M.B.V]
					INCLUDING THE
					CYLINDER DRIVE PACK
					C.B.A.(VEP02329A),
					SUB MAIN C.B.A.
					(VEP03590D),INPUT/
					OUTPUT PACK C.B.A.
					(VEP03594D),OSC PACK
					C.B.A.(VEP06583A),
					TV DEMODULATOR C.B.A.
					(VEP07536D)
		VEP03588F	MAIN C.B.A.	1	NV-L25EI(NLA)<!>
					[SUPPLIED FROM M.B.V]
					INCLUDING THE
					CYLINDER DRIVE PACK
					C.B.A.(VEP02329A),
					SUB MAIN C.B.A.
					(VEP03590S),INPUT/
					OUTPUT PACK C.B.A.
					(VEP03594B),OSC PACK
					C.B.A.(VEP06583A),
					TV DEMODULATOR C.B.A.
					(VEP07536C)
		VEP02329A	CYLINDER DRIVE PACK C.B.A.	1	(NLA)
		VEP03590D	SUB MAIN C.B.A.	1	NV-L25EV/EO(NLA)
		VEP03590S	SUB MAIN C.B.A.	1	NV-L25EI(NLA)
					[SUPPLIED FROM M.B.V]
		VEP03594D	INPUT/OUTPUT PACK C.B.A.	1	NV-L25EV/EO(NLA)
		VEP03594B	INPUT/OUTPUT PACK C.B.A.	1	NV-L25EI(NLA)
					[SUPPLIED FROM M.B.V]
		VEP06583A	OSC PACK C.B.A.	1	(NLA)
		VEP07536D	TV DEMODULATOR C.B.A.	1	NV-L25EV/EO(NLA)
		VEP07536C	TV DEMODULATOR C.B.A.	1	NV-L25EI(NLA)
					[SUPPLIED FROM M.B.V
		VEP07543E	TIMER C.B.A.	1	NV-L25EV/EO(NLA)
					INCLUDING THE
					IR RECIVER C.B.A.
					(VEP06380G) OR
					(VEP06500G)
		VEP07543C	TIMER C.B.A.	1	NV-L25EI(NLA)
					[SUPPLIED FROM M.B.V]
					INCLUDING THE
					IR RECIVER C.B.A.
					(VEP06380G) OR
					(VEP06500G)
		VEP06380G	IR RECIVER C.B.A.	1	(NLA)
		VEP06500G			
		VEP05137A	HEAD AMP C.B.A.	1	NV-L25EV/EO(NLA)
		VEP05137D	HEAD AMP C.B.A.	1	NV-L25EI(NLA)
		VEP06558A	OPERATION C.B.A.	1	NV-L25EV/EO(NLA)
					INCLUDING THE
					MIC JACK C.B.A.
					(VEP00N31A)
		VEP06558G	OPERATION C.B.A.	1	NV-L25EI(NLA)
					[SUPPLIED FROM M.B.V]
					INCLUDING THE
					MIC JACK C.B.A.
					(VEP00N31A)
		VEP00N31A	MIC JACK C.B.A.	1	(NLA)
		VEP01379E	POWER C.B.A.	1	NV-L25EV/EO(NLA)<!>
		VEP01379D	POWER C.B.A.	1	NV-L25EI(NLA)<!>
					[SUPPLIED FROM M.B.V]
		VEP66079G	REMOTE CONTROLLER C.B.A.	1	(NLA)
		VEP00K88C	FE HEAD C.B.A.	1	(NLA)
		VXA3554	MECHANICAL CONNECTION	1	(NLA)
			C.B.A.		
		VEK3578	PHOTO TR.(S) C.B.A.	1	(NLA)
	▮	VEP03588H	MAIN C.B.A.		NV-L25EV(NLA)<!>
	▮	VEP03588K	MAIN C.B.A.		NV-L25EO(NLA)<!>
					[SUPPLIED FROM M.B.V]
	▮	VEP03588F	MAIN C.B.A.		NV-L25EI(NLA)<!>
					[SUPPLIED FROM M.B.V]

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			CAPACITORS		
C301		ECEA1EKN2R2	E.CAPACITOR 25V 2.2U	1	
C302		ECEA0JK220	E.CAPACITOR 6.3V 22U	1	
C303		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C304		ECEA0JU331	E.CAPACITOR 6.3V 330U	1	
C305		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C306		ECEA1EK4R7	E.CAPACITOR 25V 4.7U	1	
C307		ECUM1H470JCN	C.CAPACITOR CH 50V 47P	1	
C308		ECUM1H220JCN	C.CAPACITOR CH 50V 22P	1	
C309		ECUN1H473ZFN	C.CAPACITOR CH 50V 0.047U	1	NV-L25EV/EO
C310		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C311,12		ECUM1H180JCN	C.CAPACITOR CH 50V 18P	2	
C313		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C314		ECUM1H560JCN	C.CAPACITOR CH 50V 56P	1	NV-L25EV/EO
C314		ECUM1H121JCN	C.CAPACITOR CH 50V 120P	1	NV-L25EI
C315		ECUM1H390JCN	C.CAPACITOR CH 50V 39P	1	NV-L25EV/EO
C315		ECUM1H560JCN	C.CAPACITOR CH 50V 56P	1	NV-L25EI
C316		ECUM1H820JCN	C.CAPACITOR CH 50V 82P	1	NV-L25EV/EO
C317		ECEA1AK470U	E.CAPACITOR 10V 47U	1	
C318		ECUM1H220JCN	C.CAPACITOR CH 50V 22P	1	NV-L25EV/EO
C319		ECUM1H471KBN	C.CAPACITOR CH 50V 470P	1	
C320		ECUM1H270JCN	C.CAPACITOR CH 50V 27P	1	
C321		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C322		ECEA1HK2R2	E.CAPACITOR 50V 2.2U	1	
C323		ECEA1CK100	E.CAPACITOR 16V 10U	1	NV-L25EV/EO
C324		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C325,26		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C327,28		ECEA1CK100	E.CAPACITOR 16V 10U	2	
C329		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C331		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C332		ECQV1H334JZ	P.CAPACITOR 50V 0.33U	1	
C333		ECEA1HK4R7	E.CAPACITOR 50V 4.7U	1	
C334		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C335		ECUM1H680JCN	C.CAPACITOR CH 50V 68P	1	
C336		ECUM1H101JCN	C.CAPACITOR CH 50V 100P	1	
C337		ECUM1H270JCN	C.CAPACITOR CH 50V 27P	1	
C338		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C339		ECUM1H220JCN	C.CAPACITOR CH 50V 22P	1	
C340		ECEA1EK4R7	E.CAPACITOR 25V 4.7U	1	
C341		ECUM1H223KBN	C.CAPACITOR CH 50V 0.022U	1	NV-L25EV/EO
C342		ECUM1H101JCN	C.CAPACITOR CH 50V 100P	1	NV-L25EV/EO
C343		ECEA0JK220	E.CAPACITOR 6.3V 22U	1	NV-L25EV/EO
C345		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	NV-L25EV/EO
C349		ECUM1H470JCN	C.CAPACITOR CH 50V 47P	1	
C351		ECUM1H220JCN	C.CAPACITOR CH 50V 22P	1	
C352		ECQB1H562JH	P.CAPACITOR 50V 5600P	1	
C353		ECUM1H560JCN	C.CAPACITOR CH 50V 56P	1	NV-L25EI
C360		ECUM1H153ZFN	C.CAPACITOR CH 50V 0.015U	1	
C361		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C701		ECEA1EK4R7	E.CAPACITOR 25V 4.7U	1	
C702		ECEA1CKS100	E.CAPACITOR 16V 10U	1	
C703		ECEA1HK2R2	E.CAPACITOR 50V 2.2U	1	
C707		ECEA1HK0R1	E.CAPACITOR 50V 0.1U	1	
C708		ECEA1CKS100	E.CAPACITOR 16V 10U	1	
C710		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C715-20		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	6	
C721		ECEA1HKR27K	E.CAPACITOR 50V 0.27U	1	
C722		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C723		ECUM1H180JCN	C.CAPACITOR CH 50V 18P	1	
C725		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C727		ECUM1H080DCN	C.CAPACITOR CH 50V 8P	1	
C728		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C730		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C731		ECEA1CKS100	E.CAPACITOR 16V 10U	1	
C732		ECQV1H224JZ	P.CAPACITOR 50V 0.22U	1	
C734		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C735		ECUM1H070DCN	C.CAPACITOR CH 50V 7P	1	
C736		ECQB1H103JH	P.CAPACITOR 50V 0.01U	1	
C737		ECUM1H151JCN	C.CAPACITOR CH 50V 150P	1	
C739		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C740		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C741		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C742		ECUN1H030CCN	C.CAPACITOR CH 50V 3P	1	
C743		ECUM1H270RSN	C.CAPACITOR CH 50V 27P	1	
C744		ECEA1HKR47	E.CAPACITOR 50V 0.47U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C745		ECUX1H680JPN	C.CAPACITOR CH 50V 68P	1	
C746		ECUM1H150JCN	C.CAPACITOR CH 50V 15P	1	
C748		ECEA1CK470U	E.CAPACITOR 16V 47U	1	
C749		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C760		ECQV1H473JZ	P.CAPACITOR 50V 0.047U	1	
C775		ECUM1H120JCN	C.CAPACITOR CH 50V 12P	1	
C781		ECUM1H220JCN	C.CAPACITOR CH 50V 22P	1	
C782		ECUM1H060DCN	C.CAPACITOR CH 50V 6P	1	
C790		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C797,98		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C801,02		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	NV-L25EV/EO
C803		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	NV-L25EV/EO
C804,05		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	NV-L25EV/EO
C806		ECUM1H471KBN	C.CAPACITOR CH 50V 470P	1	NV-L25EV/EO
C807,08		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	NV-L25EV/EO
C810		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	NV-L25EV/EO
C811		ECUM1H180JCN	C.CAPACITOR CH 50V 18P	1	NV-L25EV/EO
C812		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	NV-L25EV/EO
C813		ECUM1H330JCN	C.CAPACITOR CH 50V 33P	1	NV-L25EV/EO
C814		ECEA1AK101	E.CAPACITOR 10V 100U	1	
C815		ECQV1H154JZ	P.CAPACITOR 50V 0.15U	1	
C816		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C817		ECQV1H124JZ	P.CAPACITOR 50V 0.12U	1	
C818		ECUM1H471KBN	C.CAPACITOR CH 50V 470P	1	
C819		ECUM1H820JCN	C.CAPACITOR CH 50V 82P	1	
C820		ECEA1HK2R2	E.CAPACITOR 50V 2.2U	1	
C821		ECEA1HFS4R7	E.CAPACITOR 50V 4.7U	1	
C823		ECEA1HK2R2	E.CAPACITOR 50V 2.2U	1	
C824		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C825		ECUM1H101JCN	C.CAPACITOR CH 50V 100P	1	
C826		ECEA1AU221	E.CAPACITOR 10V 220U	1	
C827		ECUM1H050DCN	C.CAPACITOR CH 50V 5P	1	
C828		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C829		ECQV1H474JZ	P.CAPACITOR 50V 0.47U	1	
C831,32		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	2	
C833		ECUM1H471KBN	C.CAPACITOR CH 50V 470P	1	
C1001		ECEA1EK470	E.CAPACITOR 25V 47U	1	
C1003		ECEA0JK101U	E.CAPACITOR 6.3V 100U	1	
C1004		ECEA1CK470U	E.CAPACITOR 16V 47U	1	
C2001		ECEA0JK221	E.CAPACITOR 6.3V 220U	1	
C2002		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C2003		ECQB1H472JH	P.CAPACITOR 50V 4700P	1	
C2004		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C2005		ECQB1H103JZ	P.CAPACITOR 50V 0.01U	1	
C2006		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C2007		ECUM1H472KBN	C.CAPACITOR CH 50V 4700P	1	
C2008		ECEA1HKN010	E.CAPACITOR 50V 1U	1	
C2009		ECEA1CKN100	E.CAPACITOR 16V 10U	1	
C2010		ECEA1HKR47	E.CAPACITOR 50V 0.47U	1	
C2011		ECUM1H562KBN	C.CAPACITOR CH 50V 5600P	1	
C2012		VCYD1E473KR	S.CAPACITOR 25V 0.047U	1	
C2013		ECEA1HK4R7	E.CAPACITOR 50V 4.7U	1	
C2014		ECEA0JK221	E.CAPACITOR 6.3V 220U	1	
C2015		ECEA0JK101U	E.CAPACITOR 6.3V 100U	1	
C2016		ECQB1H103JH	P.CAPACITOR 50V 0.01U	1	
C2017		ECEA0JK221	E.CAPACITOR 6.3V 220U	1	
C2018		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C2019		ECEA1HKN2R2	E.CAPACITOR 50V 2.2U	1	
C2020		VCYD1E473KR	S.CAPACITOR 25V 0.047U	1	
C2022		ECEA1HKN2R2	E.CAPACITOR 50V 2.2U	1	
C2024		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C2025		ECQV1H683JZ	P.CAPACITOR 50V 0.068U	1	
C2026		ECQV1H224JZ	P.CAPACITOR 50V 0.22U	1	
C2027		ECEA1HKR47	E.CAPACITOR 50V 0.47U	1	
C2028		ECQB1H333JH	P.CAPACITOR 50V 0.033U	1	
C2029		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C2030		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C2031		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C2032		ECEA1HKN010	E.CAPACITOR 50V 1U	1	
C2033		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C2034		ECEA0JK330	E.CAPACITOR 6.3V 33U	1	
C2050		ECEA0JK221	E.CAPACITOR 6.3V 220U	1	
C2101-03		ECQB1H333JH	P.CAPACITOR 50V 0.033U	3	
C2104-06		ECEA1HK2R2	E.CAPACITOR 50V 2.2U	3	
C2107,08		VCYD1E333KR	S.CAPACITOR 25V 0.033U	2	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C2111		ECEA1CK101	E.CAPACITOR 16V 100U	1	
C2115		ECEA1CK470U	E.CAPACITOR 16V 47U	1	
C2116		ECEA1EU221	E.CAPACITOR 25V 220U	1	
C2118		VCYD1E333KR	S.CAPACITOR 25V 0.033U	1	
C2121		ECQV1H184JZ	P.CAPACITOR 50V 0.18U	1	
C2201		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C2203		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C2204-06		ECEA1HK0R1	E.CAPACITOR 50V 0.1U	3	
C2207		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C2208-10		ECEA1VKN4R7	E.CAPACITOR 35V 4.7U	3	
C2211		ECQB1H473JH	P.CAPACITOR 50V 0.047U	1	
C2212		ECEA0JK101U	E.CAPACITOR 6.3V 100U	1	
C2213		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C2301		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C2302		VCYD1E473KR	S.CAPACITOR 25V 0.047U	1	
C2303		ECUM1H562KBN	C.CAPACITOR CH 50V 5600P	1	
C2304		ECEA1HKR47	E.CAPACITOR 50V 0.47U	1	
C2305		ECEA1HKN010	E.CAPACITOR 50V 1U	1	
C2501		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C2502		ECUM1H220JCN	C.CAPACITOR CH 50V 22P	1	
C2504		ECEA1HKN010	E.CAPACITOR 50V 1U	1	
C2505		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C2506		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C2507		ECQB1H103JH	P.CAPACITOR 50V 0.01U	1	
C2508		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C2509		ECUM1H181JCN	C.CAPACITOR CH 50V 180P	1	
C3001		ECEA1CK470U	E.CAPACITOR 16V 47U	1	
C3002		ECEA0JU471	E.CAPACITOR 6.3V 470U	1	
C3003,04		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C3010		ECUM1H151JCN	C.CAPACITOR CH 50V 150P	1	
C3011		ECUM1H330JCN	C.CAPACITOR CH 50V 33P	1	
C3012		ECUM1H681KBN	C.CAPACITOR CH 50V 680P	1	
C3013		ECEA1HKN010	E.CAPACITOR 50V 1U	1	
C3014		ECUM1H330JCN	C.CAPACITOR CH 50V 33P	1	
C3015		VCYD1E103KR	S.CAPACITOR 25V 0.01U	1	
C3016		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C3017,18		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C3019		ECUM1H220JCN	C.CAPACITOR CH 50V 22P	1	
C3027		ECUM1H181JCN	C.CAPACITOR CH 50V 180P	1	NV-L25EV/EO
C3053		ECEA0JK101U	E.CAPACITOR 6.3V 100U	1	
C3064		ECQB1H103JH	P.CAPACITOR 50V 0.01U	1	
C3065		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3067,68		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C3070		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3071		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C3072		ECUM1H101JCN	C.CAPACITOR CH 50V 100P	1	NV-L25EI
C3076		ECUM1H180JCN	C.CAPACITOR CH 50V 18P	1	
C3081		ECEA1CK220	E.CAPACITOR 16V 22U	1	
C3101		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C3102		ECEA1CK470U	E.CAPACITOR 16V 47U	1	
C3103,04		ECUM1H332KBN	C.CAPACITOR CH 50V 3300P	2	
C3105		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C3901,02		ECEA1CK330U	E.CAPACITOR 16V 33U	2	
C3903		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C3904-06		ECEA1CK470U	E.CAPACITOR 16V 47U	3	
C3907,08		ECEA1HK2R2	E.CAPACITOR 50V 2.2U	2	
C3909		ECEA1HKR47	E.CAPACITOR 50V 0.47U	1	
C3913		ECUM1H103KBN	C.CAPACITOR CH 50V 0.01U	1	NV-L25EI
C3914		ECUM1H222KBN	C.CAPACITOR CH 50V 2200P	1	
C3916		ECUX1H471KBN	C.CAPACITOR CH 50V 470P	1	
C4001		ECQB1H103JH	P.CAPACITOR 50V 0.01U	1	
C4002		ECEA16M33	E.CAPACITOR 16V 33U	1	
C4003		ECKF1H102ZF	C.CAPACITOR 50V 1000P	1	
C4004		ECQP1222JZ	P.CAPACITOR 0.0022U	1	
C4005		ECCD2H121K	C.CAPACITOR 500V 120P	1	
C4006		ECEA1CK470U	E.CAPACITOR 16V 47U	1	
C4007		ECEA1CK330U	E.CAPACITOR 16V 33U	1	
C4008		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C4009		ECEA1EK4R7	E.CAPACITOR 25V 4.7U	1	
C4011		ECQB1H273JH	P.CAPACITOR 50V 0.027U	1	NV-L25EV/EO
C4012		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C4013		ECUM1H681JN	C.CAPACITOR CH 50V 680P	1	
C4014		ECUM1H182KBN	C.CAPACITOR CH 50V 1800P	1	NV-L25EV/EO
C4015		ECEA16M10	E.CAPACITOR 16V 10U	1	
C4016		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C4017		ECEA10M47	E.CAPACITOR 10V 47U	1	
C4018		ECQB1H822JH	P.CAPACITOR 50V 8200P	1	
C4019		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C4020		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C4021		ECEA1AK101	E.CAPACITOR 10V 100U	1	
C4022		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C4023		ECUM1H221JCN	C.CAPACITOR CH 50V 220P	1	
C4024,25		ECUM1H101JCN	C.CAPACITOR CH 50V 100P	2	
C4026		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C4029		ECQB1H123JH	P.CAPACITOR 50V 0.012U	1	
C4032		ECEA1CK470U	E.CAPACITOR 16V 47U	1	
C4033		ECQB1H102JH	P.CAPACITOR 50V 1000P	1	NV-L25EV/EO
C4034		ECUM1H681KBN	C.CAPACITOR CH 50V 680P	1	
C6001,02		ECEA0JK470	E.CAPACITOR 6.3V 47U	2	
C6005		ECEA1CK330U	E.CAPACITOR 16V 33U	1	
C6006		ECEA0JK330	E.CAPACITOR 6.3V 33U	1	
C6007		VCYD1C104MR1	S.CAPACITOR 16V 0.1U	1	
C6008		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C6010		ECUM1H332KBN	C.CAPACITOR CH 50V 3300P	1	
C6011,12		ECUM1H271JCN	C.CAPACITOR CH 50V 270P	2	
C6013		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	
C6014		ECEA1CK220	E.CAPACITOR 16V 22U	1	
C6015		ECEA1CK330U	E.CAPACITOR 16V 33U	1	
C6021		ECUM1H332KBN	C.CAPACITOR CH 50V 3300P	1	
C6022		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	
C6025		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C6028		ECUM1H332KBN	C.CAPACITOR CH 50V 3300P	1	
C6029		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	
C6101		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C6102		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C6103		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C6104		ECUM1H181JCN	C.CAPACITOR CH 50V 180P	1	
C6105		ECUM1H101JCN	C.CAPACITOR CH 50V 100P	1	
C6106		ECUM1H150JCN	C.CAPACITOR CH 50V 15P	1	
C6801		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C7401		ECEA0JU221	E.CAPACITOR 6.3V 220U	1	
C7402		EECS5R5V473	E.CAPACITOR 5.5V 0.047	1	
C7404		ECQV1H223JS	P.CAPACITOR 50V 0.022U	1	
C7407		ECEA0JK101	E.CAPACITOR 6.3V 100U	1	NV-L25EI
C7409		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C7410		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C7421		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C7422		ECUM1H272KBN	C.CAPACITOR CH 50V 2700P	1	
C7423		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C7651		ECEA1CKN100	E.CAPACITOR 16V 10U	1	
C7653		ECQB1H332JH	P.CAPACITOR 50V 3300P	1	
C7668		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C7672		ECEA1HKS010	E.CAPACITOR 50V 1U	1	
C7801		ECQB1H102JH	P.CAPACITOR 50V 1000P	1	NV-L25EV
C7802		ECQB1H471JH	P.CAPACITOR 50V 470P	1	NV-L25EV
C7803		ECQB1H472JH	P.CAPACITOR 50V 4700P	1	NV-L25EV
C7804		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	NV-L25EV
C7805		ECQB1H103JH	P.CAPACITOR 50V 0.01U	1	NV-L25EV
C7806		ECQB1H333JH	P.CAPACITOR 50V 0.033U	1	NV-L25EV
C7815		VCYD1C104MR1	S.CAPACITOR 16V 0.1U	1	NV-L25EV
C7816		ECEA0JKA331	E.CAPACITOR 6.3V 330U	1	NV-L25EV
C7851		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	NV-L25EV
C7852		ECEA1AK101	E.CAPACITOR 10V 100U	1	NV-L25EV
C7853,54		ECCF1H330JC	C.CAPACITOR 50V 33P	2	NV-L25EV
C7855,56		ECEA1HK010	E.CAPACITOR 50V 1U	2	NV-L25EV
C7860		ECEA0JK101U	E.CAPACITOR 6.3V 100U	1	NV-L25EV
D301		MA4091M	DIODE	1	
D710		MA3100L	DIODE	1	
D771		MA151WK	DIODE	1	
D772		MA165	DIODE	1	
D773		11ES1	DIODE	1	
D805		MA165	DIODE	1	NV-L25EV/EO
D1001,02		MA165	DIODE	2	
D2003,04		MA165	DIODE	2	
D2007-10		MA165	DIODE	4	
D2407		MA204WK	DIODE	1	NV-L25EV/EO
D2501		MA165	DIODE	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
D3001		MA165	DIODE	1	
D3009		MA165	DIODE	1	
D3101		MA165	DIODE	1	
D3102		MA27WA	DIODE	1	
D3901,02		MA165	DIODE	2	
D4003		MA165	DIODE	1	
D6001		MA4051	DIODE	1	
D6002-04		MA165	DIODE	3	
D6005		ERA15-01	DIODE	1	
D6006		MA165	DIODE	1	
D6008		MA723	DIODE	1	
D6009		MA4150L	DIODE	1	
D6021		MA723	DIODE	1	
D6801		MA165	DIODE	1	
D7401,02		MA723	DIODE	2	
D7406		MA165	DIODE	1	
D7407		MA27TB	DIODE	1	
D7672		MA3300H	DIODE	1	
D7851		MA165	DIODE	1	NV-L25EV
DL801		VLD0089	DELAY	1	NV-L25EV/EO
DL802		EFDBR124A53T	DELAY	1	
FL301		ELB4M022	FILTER	1	
FL302		VLF0499	FILTER	1	
FL303		VLF0727	FILTER	1	
FL801		ELB4W002	FILTER	1	
FL3101		VLF0413	FILTER	1	
IC301		VEFH03D	HIC	1	
IC302		AN3495K	IC	1	NV-L25EV/EO
IC303		MSM6965-3RS	IC	1	
IC701		M51366SP	IC	1	
IC801		VEFH04F	P.C.BOARD	1	
IC2001		MN6740VCPK	IC	1	
IC2101		BA6435S	IC	1	
IC2201		AN3814K	IC	1	
IC2301		AN6561L	IC	1	
IC2302		AN6913L	IC	1	
IC2501		CF77384NS	IC	1	
IC2502		BA6305F	IC	1	
IC3101		BA7004	IC	1	
IC3901		LA7150	IC	1	
IC4001		BA7766AS	IC	1	
IC4002		MC14053BF	IC	1	
IC6003		MN12821	IC	1	(R)
IC6801		MN15522VMS	IC	1	
IC7801		SAA4700	IC	1	NV-L25EV
IC7851		MN158413VHW	IC	1	NV-L25EV
IC7852		MN1280S	IC	1	NV-L25EV
J701		VJR0231	PACK PIN	1	
J702,03		VJR0406	PACK PIN	2	
J704		VJR0231	PACK PIN	1	
L301		VLQEL05F101K	COIL 100UH	1	
L302		VLQEL05F220K	COIL 22UH	1	
L303		VLQEL05F101K	COIL 100UH	1	
L304		VLQEL05F121K	COIL 120UH	1	NV-L25EV/EO
L304		VLQEL05R101K	COIL 120UH	1	NV-L25EI
L305		VLQEL05F680K	COIL 68UH	1	NV-L25EV/EO
L306		VLQEL05F101K	COIL 100UH	1	
L307		VLQEL05F151K	COIL 150UH	1	
L308		VLQEL05F270K	COIL 27UH	1	
L309,10		VLQEL05F101K	COIL 100UH	2	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
L311		VLQEL05R2R2K	COIL 2.2UH	1	NV-L25EI
L701,02		ELESP680KA	COIL 68UH	2	
L711		ELQTR68XB	COIL 0.68UH	1	
L712		VLQ0305J1R2	COIL 1.2UH	1	
L714		VLQ0305J1R2	COIL 1.2UH	1	
L715		VLQ0213K680	COIL 68UH	1	
L716		ELESP560KA	COIL 56H	1	
L717,18		ELESP680KA	COIL 68UH	2	
L719		ELESP120KA	COIL 12UH	1	
L781		ELESP680KA	COIL 68UH	1	
L801		VLQEL05F101K	COIL 100UH	1	NV-L25EV/EO
L802,03		VLQEL05F150K	COIL 15UH	2	NV-L25EV/EO
L804		VLQ0213K150	COIL 15UH	1	
L805		VLQEL05F101K	COIL 100UH	1	
L806		VLQEL05F681K	COIL 680UH	1	
L808		VLQEL05F470K	COIL 47UH	1	
L809		VLQEL05F331K	COIL 330UH	1	
L810		VLQEL05F101K	COIL 100UH	1	
L811		VLQEL05F470K	COIL 47UH	1	
L812		VLQEL05F681K	COIL 680UH	1	
L2002		VLP0074	COIL	1	
L2003		VLQEL05F101K	COIL 100UH	1	
L2101		VLQEL05F102K	COIL 1000UH	1	
L3001-03		VLQEL05F101K	COIL 100UH	3	
L3005		VLQEL05F120K	COIL 12UH	1	
L3006		VLQEL05F6R8K	COIL 6.8UH	1	
L3007		VLQEL05F101K	COIL 100UH	1	
L3008		VLQEL05F3R3K	COIL 3.3UH	1	
L3011		VLQEL05F5R6K	COIL 5.6UH	1	NV-L25EV/EO
L3101		VLQEL05F101K	COIL 100UH	1	
L3901		VLQEL05F1R0K	COIL 1UH	1	
L3902		VLQEL05F2R7K	COIL 2.7UH	1	
L3903		VLQEL05F1R0K	COIL 1UH	1	NV-L25EI
L3904		VLQEL06F471K	COIL 470UH	1	NV-L25EI
L4001		VLQEL07F822J	COIL 8200UH	1	
L4002		VLQEL05F471K	COIL 470UH	1	
L6101		VLQEL05F101K	COIL 100UH	1	
L7401		VLQEL05F1R0K	COIL 1UH	1	
L7402		VLQEL05F101K	COIL 100UH	1	
L7403		VLP0085	FILTER	1	NV-L25EI
L7404		VLQEL05F1R0K	COIL 1UH	1	
L7405		VLQEL05F101K	COIL 100UH	1	
P001		VJS1237T	CONNECTOR	1	
P006		VJS1902	CONNECTOR (FEMALE)	1	
P501		VJS1931T	CONNECTOR (FEMALE)	1	
P1001		VJF0171T	CONNECTOR	1	
P1001		VJP1393T	CONNECTOR (MALE) 13P	1	
P1101		VJF0171T	CONNECTOR	1	
P1502		VJS1141T	CONNECTOR (FEMALE)	1	
P2001		VJP1932T	CONNECTOR (MALE)	1	
P2001		VJS1932T	CONNECTOR (FEMALE)	1	
P2201		VJP1237T	CONNECTOR (MALE) 10P	1	
P2201		VJS1237T	CONNECTOR	1	
P3001		VJP1931T	CONNECTOR (MALE)	1	
P3001		VJS1931T	CONNECTOR (FEMALE)	1	
P3902		VJS1469	CONNECTOR (FEMALE)	1	
P4001		VJP2622	CONNECTOR (MALE)	1	
P4002		VJP1229T	CONNECTOR (MALE) 2P	1	
P4002		VJS1229T	CONNECTOR (FEMALE)	1	
P4003		VJP1231T	CONNECTOR (MALE) 4P	1	
P4003		VJS1231T	CONNECTOR (FEMALE)	1	
P6001		VJS2571A012	CONNECTOR (FEMALE)	1	
P6002		VJS2571A004	CONNECTOR (FEMALE)	1	
P6202		VJS1231T	CONNECTOR (FEMALE)	1	
P7401		VJS1662	CONNECTOR (FEMALE)	1	
P7402		VJS2571A015	CONNECTOR (FEMALE)	1	
PK1		VJR0189	PACK PIN	1	NV-L25EV
PK2201		VJR0452	PACK PIN	1	
PK2202		VJR0348	PACK PIN	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
PK3901		VJR0348	PACK PIN	1	
PK3902		VJR0523	PACK PIN	1	
PK3903		VJR0348	PACK PIN	1	
PK3904		VJR0416	PACK PIN	1	
PK6101		VJR0277	PACK PIN	1	
Q301		2SB709	TRANSISTOR CHIP	1	(Q,R,S)
Q302,03		2SC2295	TRANSISTOR CHIP	2	(B,C)
Q304		2SD601	TRANSISTOR CHIP	1	(Q,R,S)
Q703		2SD601	TRANSISTOR	1	(S,T)
Q710		2SC2377	TRANSISTOR	1	(C,D)
Q712		2SD638	TRANSISTOR	1	
Q713		2SD1328	TRANSISTOR	1	
Q771		2SD601	TRANSISTOR CHIP	1	
Q801		2SD601	TRANSISTOR CHIP	1	NV-L25EV/EO
Q802		2SC2295	TRANSISTOR	1	NV-L25EV/EO
Q804		2SB709	TRANSISTOR CHIP	1	(Q,R,S)
Q2001		2SD601	TRANSISTOR CHIP	1	(Q,R,S)
Q2002		2SD1330	TRANSISTOR	1	(S,T)
Q2301		2SD601	TRANSISTOR CHIP	1	(Q,R,S)
Q2302,03		2SB709	TRANSISTOR CHIP	2	(Q,R,S)
Q3001		2SC2295	TRANSISTOR	1	
Q3003		2SD601	TRANSISTOR CHIP	1	
Q3004		2SB709	TRANSISTOR CHIP	1	(Q,R,S)
Q3006		2SC2295	TRANSISTOR	1	
Q3007		2SB709	TRANSISTOR CHIP	1	(Q,R,S)
Q3101		2SD601	TRANSISTOR CHIP	1	
Q4001		2SD602	TRANSISTOR	1	(R)
Q4002		2SB790	TRANSISTOR	1	(Q,R,S)
Q6001		2SD893	TRANSISTOR	1	
Q6002,03		2SD973	TRANSISTOR	2	(S)
Q6004		2SD638	TRANSISTOR	1	
Q6006		2SB643	TRANSISTOR	1	
Q6007		2SB710	TRANSISTOR	1	(R,S)
Q6008		2SD1273	TRANSISTOR	1	(P,O)
Q6009		2SB710	TRANSISTOR	1	(R,S)
Q6010		2SD637	TRANSISTOR	1	
Q6011		2SB709	TRANSISTOR CHIP	1	
Q6101		2SC2206	TRANSISTOR	1	(B,C)
QR301-03		UN2212	TRANSISTOR-RESISTOR	3	NV-L25EV/EO
QR701,02		UN2213	TRANSISTOR-RESISTOR	2	
QR711,12		UN2212	TRANSISTOR-RESISTOR	2	
QR714		UN2211	TRANSISTOR-RESISTOR	1	
QR801		UN2212	TRANSISTOR-RESISTOR	1	NV-L25EV/EO
QR1001		UN2213	TRANSISTOR-RESISTOR	1	
QR2002		DTC363EK	COMBI.TR-R	1	
QR2004		2SD1676	COMBINATION PARTS	1	
QR2005		UN2213	TRANSISTOR-RESISTOR	1	
QR2405		UN2213	TRANSISTOR-RESISTOR	1	NV-L25EV/EO
QR2502		DTC363EK	COMBI.TR-R	1	
QR3004		UN2111	TRANSISTOR-RESISTOR	1	
QR3005		UN2213	TRANSISTOR-RESISTOR	1	
QR3006,07		DTC363EK	COMBI.TR-R	2	NV-L25EV/EO
QR3008		UN2213	TRANSISTOR-RESISTOR	1	
QR3010		UN2213	TRANSISTOR-RESISTOR	1	NV-L25EV/EO
QR4001,02		UN2213	TRANSISTOR-RESISTOR	2	
QR6002		UN2119	TRANSISTOR-RESISTOR	1	
QR6003		UN2113	TRANSISTOR-RESISTOR	1	
QR6004		UN2213	TRANSISTOR-RESISTOR	1	
QR6006		UN2213	TRANSISTOR-RESISTOR	1	NV-L25EV/EO
QR6007		UN2212	TRANSISTOR-RESISTOR	1	
QR6008		UN2213	TRANSISTOR-RESISTOR	1	
QR6011,12		UN2212	TRANSISTOR-RESISTOR	2	
QR6201		UN2113	TRANSISTOR-RESISTOR	1	
QR6202		UN2213	TRANSISTOR-RESISTOR	1	
QR7401		UN2211	TRANSISTOR-RESISTOR	1	
QR7851		UN1211	TRANSISTOR-RESISTOR	1	NV-L25EV
QR7852		UN1213	TRANSISTOR-RESISTOR	1	NV-L25EV

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			RESISTORS		
R301		ERJ6GMYJ122	M.RESISTOR CH 1/10W 1.2K	1	
R302		ERJ6GMYJ391	M.RESISTOR CH 1/10W 390	1	
R303		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R304		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R305		ERJ6GMYJ824	M.RESISTOR CH 1/10W 820K	1	
R306		ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R307		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R308		ERJ6GMYJ123	M.RESISTOR CH 1/10W 12K	1	
R309		ERJ6GMYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R310		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R311		ERJ6GMYJ392	M.RESISTOR CH 1/10W 3.9K	1	NV-L25EV/EO
R311		ERJ6GMYJ272	M.RESISTOR CH 1/10W 2.7K	1	NV-L25EI
R312		ERJ6GMYJ392	M.RESISTOR CH 1/10W 3.9K	1	NV-L25EV/EO
R312		ERJ6GMYJ182	M.RESISTOR CH 1/10W 1.8K	1	NV-L25EI
R313		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	NV-L25EV/EO
R314		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	NV-L25EV/EO
R315		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	NV-L25EV/EO
R317		ERJ6GMYJ471	M.RESISTOR CH 1/10W 470	1	
R318		ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	1	NV-L25EV/EO
R319		ERJ6GMYJ273	M.RESISTOR CH 1/10W 27K	1	NV-L25EV/EO
R320		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R325		ERJ6GMYJ151	M.RESISTOR CH 1/10W 150	1	
R326		ERJ6GMYJ822	M.RESISTOR CH 1/10W 8.2K	1	
R327		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R328		ERJ6GMYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R329		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R330		ERJ6GMYJ183	M.RESISTOR CH 1/10W 18K	1	
R331		ERJ6GMYJ561	M.RESISTOR CH 1/10W 560	1	
R332		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R334,35		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	2	
R338		ERJ6GMYJ124	M.RESISTOR CH 1/10W 120K	1	
R339		ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	1	NV-L25EI
R712		ERJ6GEYJ682	M.RESISTOR CH 1/10W 6.8K	1	
R713		ERJ6GEYJ681	M.RESISTOR CH 1/10W 680	1	
R714		ERD2FCG330	C.RESISTOR 2W 33	1	
R715		ERJ6GEYJ271	M.RESISTOR CH 1/10W 270	1	
R716		ERJ6GEYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R717		ERJ6GEYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R718		ERJ6GEYJ754	M.RESISTOR CH 1/10W 750K	1	
R719,20		ERJ6GEYJ682	M.RESISTOR CH 1/10W 6.8K	2	
R721		ERJ6GEYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R722		ERJ6GEYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R723		ERJ6GEYJ183	M.RESISTOR CH 1/10W 180K	1	
R724		ERDS2TJ101	C.RESISTOR 1/4W 100	1	
R725		ERJ6GEYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R726		ERJ6GEYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R727		ERJ6GEYJ471	M.RESISTOR CH 1/10W 470	1	
R728		ERDS2TJ471	C.RESISTOR 1/4W 470	1	
R729,30		ERJ6GEYJ331	M.RESISTOR CH 1/10W 330	2	
R737		ERJ6GEYJ274	M.RESISTOR CH 1/10W 270K	1	
R738		ERJ6GEYJ334	M.RESISTOR CH 1/10W 330K	1	
R739		ERJ6GEYJ681	M.RESISTOR CH 1/10W 680	1	
R740		ERJ6GEYJ473	M.RESISTOR CH 1/10W 47K	1	
R741		ERJ6GEYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R743		ERJ6GEYJ470	M.RESISTOR CH 1/10W 47	1	
R744		ERJ6GEYJ821	M.RESISTOR CH 1/10W 820	1	
R745		ERJ6GEYJ331	M.RESISTOR CH 1/10W 330	1	
R746		ERDS2TJ181	C.RESISTOR 1/4W 180	1	
R747		ERJ6GEYJ471	M.RESISTOR CH 1/10W 470	1	
R750		ERJ6GEYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R757		ERJ6GEYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R758		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R759		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R763		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R764		ERJ6GEYJ822	M.RESISTOR CH 1/10W 8.2K	1	
R772		ERJ6GEYJ271	M.RESISTOR CH 1/10W 270	1	
R773		ERJ6GEYJ124	M.RESISTOR CH 1/10W 120K	1	
R774		ERJ6GEYJ104	M.RESISTOR CH 1/10W 100K	1	
R781		ERJ6GEYJ271	M.RESISTOR CH 1/10W 270	1	
R782		ERJ6GEYJ821	M.RESISTOR CH 1/10W 820	1	
R792		ERDS2TJ120	C.RESISTOR 1/4W 12	1	
R795		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R796		ERJ6GEYJ182	M.RESISTOR CH 1/10W 1.8K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R801		ERJ6GMYJ271	M.RESISTOR CH 1/10W 270	1	NV-L25EV/EO
R802		ERJ6GMYJ122	M.RESISTOR CH 1/10W 1.2K	1	NV-L25EV/EO
R803,04		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	2	NV-L25EV/EO
R805,06		ERJ6GMYJ471	M.RESISTOR CH 1/10W 470	2	NV-L25EV/EO
R807		ERJ6GMYJ122	M.RESISTOR CH 1/10W 1.2K	1	NV-L25EV/EO
R808		ERJ6GMYJ681	M.RESISTOR CH 1/10W 680	1	NV-L25EV/EO
R809		ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	1	NV-L25EV/EO
R810		ERJ6GMYJ331	M.RESISTOR CH 1/10W 330	1	NV-L25EV/EO
R815		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R816		ERJ6GMYJ822	M.RESISTOR CH 1/10W 8.2K	1	
R817		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	NV-L25EV/EO
R818		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R819		ERJ6GMYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R820		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R821		ERJ6GMYJ273	M.RESISTOR CH 1/10W 27K	1	
R822		ERJ6GMYJ183	M.RESISTOR CH 1/10W 18K	1	
R823		ERJ6GMYJ271	M.RESISTOR CH 1/10W 270	1	
R824		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R825		ERJ6GMYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R827		ERJ6GMYJ333	M.RESISTOR CH 1/10W 33K	1	NV-L25EV/EO
R828		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	NV-L25EV/EO
R831		ERJ6GMYJ821	M.RESISTOR CH 1/10W 820	1	
R2001,02		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	2	
R2004,05		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	2	
R2006		ERJ6GMY0R00	M.RESISTOR CH 1/10W 0.00	1	
R2007		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R2008		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R2009		ERJ6GMYJ393	M.RESISTOR CH 1/10W 39K	1	
R2010		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R2011		ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R2012		ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R2013		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R2014		ERJ6GMYJ824	M.RESISTOR CH 1/10W 820K	1	
R2015,16		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	2	
R2017		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R2018		ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R2019		ERJ6GMYJ124	M.RESISTOR CH 1/10W 120K	1	
R2020		ERJ6GMYJ821	M.RESISTOR CH 1/10W 820	1	
R2021		ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R2022		ERJ6GMYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R2023		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R2024		ERJ6GMYJ823	M.RESISTOR CH 1/10W 82K	1	
R2025		ERJ6GMYG562	M.RESISTOR CH 1/10W 5.6K	1	
R2026		ERJ6GMYG392	M.RESISTOR CH 1/10W 3.9K	1	
R2027		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R2028		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R2029		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R2030		ERJ6GMYJ123	M.RESISTOR CH 1/10W 12K	1	
R2031		ERJ6GMYJ392	M.RESISTOR CH 1/10W 3.9K	1	
R2032		ERDS2TJ471	C.RESISTOR 1/4W 470	1	
R2033		ERJ6GMYJ824	M.RESISTOR CH 1/10W 820K	1	
R2034		ERJ6GMYJ104	M.RESISTOR CH 1/10W 100K	1	
R2037		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R2038		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R2040		ERJ6GMYJ471	M.RESISTOR CH 1/10W 470	1	
R2051		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R2101-03		ERDS2TJ560	C.RESISTOR 1/4W 56	3	
R2104		ERX12SJR47E	M.RESISTOR 1/2W 0.47	1	
R2105		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R2106		ERJ6GMYG561	M.RESISTOR CH 1/10W 560	1	
R2107		ERJ6GMYG153	M.RESISTOR CH1/10W 15K	1	
R2108		ERJ6GMYG133	M.RESISTOR CH 1/10W 13K	1	
R2109		ERJ6GMYJ330	M.RESISTOR CH 1/10W 33	1	
R2201		ERDS2TJ122	C.RESISTOR 1/4W 1.2K	1	
R2202-04		ERDS2TJ150	C.RESISTOR 1/4W 15	3	
R2205		ERX12SJR68	M.RESISTOR 1/2W 0.68	1	
R2301		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R2302		ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R2303		ERJ6GMYJ393	M.RESISTOR CH 1/10W 39K	1	
R2304		ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R2305		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R2306		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R2307		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R2308		ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R2309		ERJ6GMYJ824	M.RESISTOR CH 1/10W 820K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R2310		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R2311		ERJ6GMYJ824	M.RESISTOR CH 1/10W 820K	1	
R2312,13		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	2	
R2314,15		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	2	
R2316		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R2405		ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R2501		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R2503		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R2504		ERJ6GMYJ823	M.RESISTOR CH 1/10W 82K	1	
R2505		ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R2506		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R3001		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R3002		ERJ6GMYJ682	M.RESISTOR CH 1/10W 6.8K	1	
R3003		ERJ6GMYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R3019		ERDS2TJ471	C.RESISTOR 1/4W 470	1	
R3022,23		ERJ6GMYJ821	M.RESISTOR CH 1/10W 820	2	
R3027		ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R3028		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R3029		ERJ6GMYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R3030		ERJ6GMYJ750	M.RESISTOR CH 1/10W 75	1	
R3042		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R3057		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	NV-L25EV/EO
R3060		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	NV-L25EV/EO
R3062		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R3063		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R3071		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R3085		ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R3086		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R3087,88		ERJ6GMYJ104	M.RESISTOR CH 1/10W 100K	2	
R3091		ERDS2TJ102	C.RESISTOR 1/4W 1K	1	NV-L25EV/EO
R3094		ERJ6GMY0R00	M.RESISTOR CH 1/10W 0.00	1	
R3095		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R3096		ERDS2TJ102	C.RESISTOR 1/4W 1K	1	
R3101		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R3102		ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R3103		ERJ6GMYJ392	M.RESISTOR CH 1/10W 3.9K	1	
R3104		ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R3105		ERJ6GMYJ561	M.RESISTOR CH 1/10W 560	1	
R3901		ERJ6GEYJ750	M.RESISTOR CH 1/10W 75	1	
R3902		ERDS2TJ750	C.RESISTOR 1/4W 75	1	
R3903,04		ERJ6GEYJ242	M.RESISTOR CH 1/10W 2.4K	2	
R3905		ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	NV-L25EO/EV
R3905		ERJ6GEYJ101	M.RESISTOR CH 1/10W 100	1	NV-L25EI
R3906		ERJ6GEYJ273	M.RESISTOR CH 1/10W 27K	1	
R3908		ERJ6GEYJ333	M.RESISTOR CH 1/10W 33K	1	
R3909		ERJ6GEYJ750	M.RESISTOR CH 1/10W 75	1	
R3910		ERDS2TJ750	C.RESISTOR 1/4W 75	1	
R3912		ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	1	
R3913		ERJ6GEYJ123	M.RESISTOR CH 1/10W 12K	1	
R3916		ERDS2T0	C.RESISTOR 1/4W 0	1	
R4001		ERJ6GMYJ100	M.RESISTOR CH 1/10W 10	1	
R4002		ERJ6GMYJ153	M.RESISTOR CH 1/10W 15K	1	
R4003		ERJ6GMYG223	M.RESISTOR CH1/10W 22K	1	
R4004		ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R4007		ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R4008		ERJ6GMYJ122	M.RESISTOR CH 1/10W 1.2K	1	
R4010		ERJ6GMYJ683	M.RESISTOR CH 1/10W 68K	1	
R4012		ERJ6GMYJ331	M.RESISTOR CH 1/10W 330	1	
R4013		ERJ6GMYJ394	M.RESISTOR CH 1/10W 390K	1	
R4014		ERJ6GMYG133	M.RESISTOR CH 1/10W 13K	1	
R4015		ERJ6GMYJ822	M.RESISTOR CH 1/10W 8.2K	1	NV-L25EV/EO
R4016		ERJ6GMYJ105	M.RESISTOR CH 1/10W 1M	1	
R4017		ERJ6GMYJ302	M.RESISTOR CH1/10W 3K	1	
R4018		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R4019		ERJ6GMYJ563	M.RESISTOR CH 1/10W 56K	1	
R4020		ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R4021		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R4022		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R4023		ERJ6GMYG473	M.RESISTOR CH 1/10W 47K	1	
R4024,25		ERJ6GMYG104	M.RESISTOR CH 1/10W 100K	2	
R4026		ERJ6GMYJ123	M.RESISTOR CH 1/10W 12K	1	
R4027		ERJ6GMYJ153	M.RESISTOR CH 1/10W 15K	1	
R4028		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R4031		ERJ6GMYG272	M.RESISTOR CH1/10W 2.7K	1	
R4032		ERJ6GMYG622	M.RESISTOR CH1/10W 6.2K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R4035		ERJ6GMYJ822	M.RESISTOR CH 1/10W 8.2K	1	
R4036		ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R4038		ERDS2TJ562	C.RESISTOR 1/4W 5.6K	1	
R4039		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R4040		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R4041		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R4042		ERJ6GMYJ681	M.RESISTOR CH 1/10W 680	1	
R4044		ERJ6GMYG103	M.RESISTOR CH 1/10W 10K	1	NV-L25EV/EO
R4044		ERJ6GMY0R00	M.RESISTOR CH 1/10W 0.00	1	NV-L25EI
R4048		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R4049		ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	
R6001-03		ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	3	
R6004,05		ERJ6GMYJ333	M.RESISTOR CH 1/10W 33K	2	
R6006		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R6007		ERJ6GMYJ122	M.RESISTOR CH 1/10W 1.2K	1	
R6008		ERJ6GMYJ561	M.RESISTOR CH 1/10W 560	1	
R6009		ERJ6GMYJ333	M.RESISTOR CH 1/10W 33K	1	
R6010		ERJ6GMYJ561	M.RESISTOR CH 1/10W 560	1	
R6011		ERJ6GMYJ333	M.RESISTOR CH 1/10W 33K	1	
R6012		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R6013		ERJ6GMYJ683	M.RESISTOR CH 1/10W 68K	1	
R6014		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R6015		ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	1	
R6017		ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R6018		ERJ6GMYJ131	M.RESISTOR CH 1/10W 130	1	
R6019		ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R6020		ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R6021		ERJ6GMYJ201	M.RESISTOR CH 1/10W 200	1	
R6022		ERG3SJ220	M.RESISTOR 3W 22	1	
R6023		ERJ6GMYJ471	M.RESISTOR CH 1/10W 470	1	
R6024		ERJ6GMYJ561	M.RESISTOR CH 1/10W 560	1	
R6025		ERJ6GMYJ391	M.RESISTOR CH 1/10W 390	1	
R6026		ERD2FCVG220	C.RESISTOR 2W 22	1	
R6028		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R6029		ERDS2TJ152	C.RESISTOR 1/4W 1.5K	1	
R6039		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R6040		ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R6041		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R6042,43		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	2	
R6044,45		ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	2	
R6046		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	NV-L25EV/EO
R6047		ERDS1TJ332	C.RESISTOR 1/2W 3.3K	1	
R6048		ERJ6GMYJ681	M.RESISTOR CH 1/10W 680	1	
R6049		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R6050		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R6051		ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R6052		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R6053		ERG2SJ471	M.RESISTOR 2W 470	1	
R6054		ERJ6GMYJ104	M.RESISTOR CH 1/10W 100K	1	
R6055		ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	1	
R6056		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R6057		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R6059		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R6060		ERJ6GMYJ104	M.RESISTOR CH 1/10W 100K	1	
R6101		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R6102		ERJ6GEYJ333	M.RESISTOR CH 1/10W 33K	1	
R6103,04		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	2	
R6201		ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	1	
R6202		ERJ6GMYJ183	M.RESISTOR CH 1/10W 18K	1	
R6203		ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	1	
R6204		ERJ6GMYJ391	M.RESISTOR CH 1/10W 390	1	
R6205,06		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	2	
R6801		ERDS1TJ470	C.RESISTOR 1/2W 47	1	
R7401		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R7402		ERJ6GMYJ181	M.RESISTOR CH 1/10W 180	1	
R7656		ERJ6GEYJ221	M.RESISTOR CH 1/10W 220	1	
R7676		ERG1SJ332	M.RESISTOR 1W 3.3K	1	
R7801		ERDS2TJ472	C.RESISTOR 1/4W 4.7K	1	NV-L25EV
R7802		EROS2CKG7502	M.RESISTOR 1/4W 75K	1	NV-L25EV
R7803,04		ERDS2TJ103	C.RESISTOR 1/4W 10K	2	NV-L25EV
R7805		ERDS2TJ473	C.RESISTOR 1/4W 47K	1	NV-L25EV
R7806		EROS2CKG3601	M.RESISTOR 1/4W 3.6K	1	NV-L25EV
R7851		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	NV-L25EV
R7852		ERDS2TJ332	C.RESISTOR 1/4W 3.3K	1	NV-L25EV
R7860		ERDS2TJ471	C.RESISTOR 1/4W 470	1	NV-L25EV

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
T703		EIV5EC013A	TRANSFORMER	1	
T704		EIV5EC006A1	TRANSFORMER	1	
T710		EULBEF023	TRANSFORMER	1	
T711		EIS5EC004A	TRANSFORMER	1	
T4001		EIQ7QF013Q	TRANSFORMER	1	
VR301		EVNDRAA00B24	V.RESISTOR 20K	1	NV-L25EV/EO
VR302		EVN4YCA00B23	V.RESISTOR 2K	1	
VR701,02		EVM4LGA00B23	V.RESISTOR 2K	2	
VR741		EVNDRAA00B14	V.RESISTOR 10K	1	
VR751		EVNDRAA00B53	V.RESISTOR 5K	1	
VR801		EVN4YCA00B52	V.RESISTOR 500	1	NV-L25EV/EO
VR802		EVN4YCA00B13	V.RESISTOR 1K	1	NV-L25EV/EO
VR803		EVNDRAA00B14	V.RESISTOR 10K	1	
VR2001		EVNDRAA00B54	V.RESISTOR 50K	1	
VR2010		EVND1AA00B25	V.RESISTOR 200K	1	
VR2011		EVNDRAA00B15	V.RESISTOR 100K	1	
VR3012,13		EVNDRAA00B52	V.RESISTOR 500	2	
VR4002		EVNDRAA00B25	V.RESISTOR 200K	1	
X301		VSX0225	CRYSTAL OSCILLATOR	1	
X710		EFCH38MSP2	CRYSTAL OSCILLATOR	1	
X711		EFCS5R5MW5	FILTER	1	
X712		EFCS5R5MS5	FILTER	1	
X715		ELB5A043	FILTER	1	
X716		EFCA31R90M1	CRYSTAL OSCILLATOR	1	31.75MHZ
X717		EFCA40R40M1	FILTER	1	
X801		VSX0162	CRYSTAL OSCILLATOR	1	
X3101		VSX0099	CRYSTAL OSCILLATOR	1	
X6101		VSX0244	CRYSTAL OSCILLATOR	1	
X6801		VSX0258	CRYSTAL OSC.	1	
X7401		VSQ0565	SENSOR	1	
X7851		EFOA4R0M03C2	CRYSTAL OSCILLATOR	1	NV-L25EV
			MISCELLANEOUS		
		VMC0075	HEAT SINK FIX SPRING	1	
		VSC1689	HEAT SINK FOR IC	1	
		VSC1068	HEAT SINK FOR TR.	1	
		VSC2712	SHIELD BOX(TOP)	1	FOR TV DEMODU. PACK
		VSC2713	SHIELD BOX(MAIN)	1	FOR TV DEMODU. PACK
		VSC2714	SHIELD BOX(BOTTOM)	1	FOR TV DEMODU. PACK
		ENC17956	RF CONVERTER UNIT	1	NV-L25EI<!>
					[SUPPLIED FROM M.B.V]
		ENC17954	RF CONVERTER UNIT	1	NV-L25EV/EO<!>
		ENV57829H6	TUNER UNIT	1	NV-L25EV/EO<!>
		ENV57830H6	TUNER UNIT	1	NV-L25EI<!>
					[SUPPLIED FROM M.B.V]
		VEJ0793	ANT. TERMINAL PLATE	1	
		VEJ0776	JACK PLATE	1	
		VWJ14AW140MM	FLEXIBLE WIRE	1	P7401-P7501
		VMZ1130	HEAT SINK BARRIER	1	
		VMA6768	EARTH ANGLE	1	
		VJF0260	CLAMPER	1	
		VJF0379	CLAMPER	1	
		VMC0462	EARTH SPRING	1	FOR SUB MAIN
	■	VEP07543E	TIMER C.B.A.		NV-L25EV/EO(NLA)
	■	VEP07543C	TIMER C.B.A.		NV-L25EI(NLA)
					[SUPPLIED FROM M.B.V]
			CAPACITORS		

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C6701		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C6702		ECKF1H331KB	C.CAPACITOR 50V 330P	1	
C6703		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C6704		ECEA1HK3R3	E.CAPACITOR 50V 3.3U	1	
C7501		ECRHA030E41	TRIMMER	1	
C7502		ECUM1H080DCN	C.CAPACITOR CH 50V 8P	1	
C7503		ECUM1H330JCN	C.CAPACITOR CH 50V 33P	1	
C7504		ECUM1H220JCN	C.CAPACITOR CH 50V 22P	1	
C7505		ECEA0JK221	E.CAPACITOR 6.3V 220U	1	
C7506		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C7507		ECEA1HKR22	E.CAPACITOR 50V 0.22U	1	
C7508,09		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	2	
C7510		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C7511		ECEA1HKA100	E.CAPACITOR 50V 10U	1	
C7512		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C7513		ECUM1H560JCN	C.CAPACITOR CH 50V 56P	1	
C7525		ECUM1H821KBN	C.CAPACITOR CH 50V 820P	1	
C7551		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
D6701		PN323B	PHOTO DIODE	1	
D7501		MA4068	DIODE	1	
D7504		MA165	DIODE	1	
D7507		MA165	DIODE	1	
D7510,11		MA165	DIODE	2	
D7513		MA165	DIODE	1	
D7516		MA165	DIODE	1	
D7517		MA165	DIODE	1	NV-L25EV/EO
D7530		MA165	DIODE	1	
D7532-35		MA165	DIODE	4	
D7537-41		MA165	DIODE	5	
D7554,55		LN28RCPL	DIODE	2	
D7556		LN38GCPL	DIODE	1	
DP7501		VSL0164	DISPLAY TUBE	1	
IC6701		UPC1490HA	IC	1	
IC7501		MN187125VHP	IC	1	
IC7502		MN12261	IC	1	
IC7503		MN1280L	IC	1	
IC7504		MN1280S	IC	1	
L7501		VLQEL05F221K	COIL 220UH	1	
P7501		VJS1492	CONNECTOR(FEMALE)	1	
P7502		VJS2174W	CONNECTOR	1	
P7505		VJS2652	CONNECTOR (FEMALE)	1	
Q7501		2SD601	TRANSISTOR CHIP	1	
QR7501		UN2213	TRANSISTOR-RESISTOR	1	
QR7502		UN2212	TRANSISTOR-RESISTOR	1	
QR7525		UN2216	TRANSISTOR	1	
			RESISTORS		
R6701		ERDS2TJ124	C.RESISTOR 1/4W 120K	1	VEP06380G
R6701		ERDS2TJ154	C.RESISTOR 1/4W 150K	1	VEP06500G
R6702		ERDS2TJ8R2	C.RESISTOR 1/4W 8.2	1	
R6703		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	VEP06500G
R7501		ERJ6GMYJ122	M.RESISTOR CH 1/10W 1.2K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R7502		ERJ6GMYJ224	M.RESISTOR CH 1/10W 220K	1	
R7504		ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	1	
R7505		ERJ6GMYJ104	M.RESISTOR CH 1/10W 100K	1	
R7508-10		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	3	
R7511		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R7512		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R7513		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R7514		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R7523-27		ERJ6GMYJ182	M.RESISTOR CH 1/10W 1.8K	5	
R7530-32		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	3	
R7533		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R7534		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R7535		ERDS1TJ5R1	C.RESISTOR 1/2W 5.1	1	
R7538		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R7540		ERJ6GMYJ181	M.RESISTOR CH 1/10W 180	1	
R7544		ERJ6GMYJ181	M.RESISTOR CH 1/10W 180	1	
R7546		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R7549		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R7550		ERJ6GMYJ181	M.RESISTOR CH 1/10W 180	1	
R7552-54		ERJ6GMYJ182	M.RESISTOR CH 1/10W 1.8K	3	
R7555		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R7561,62		ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	2	
SW7504		EVQ11407K	SWITCH	1	
SW7509		EVQ11407K	SWITCH	1	
SW7512		EVQ11407K	SWITCH	1	
SW7517		EVQ11407K	SWITCH	1	
SW7527		EVQ11407K	SWITCH	1	
SW7532-46		EVQ11407K	SWITCH	15	
VR6701		EVMLGGA00B15	V.RESISTOR 100K	1	VEP06380G
X7501		VSX0140	CRYSTAL OSCILLATOR	1	
X7502		VSX0094	CRYSTAL OSCILLATOR	1	
			MISCELLANEOUS		
		VMD1361	LED HOLDER	1	
		VJF0706	FIP HOLDER	1	
	■	VEP05137A	HEAD AMP C.B.A.		NV-L25EV/EO(NLA)
	■	VEP05137D	HEAD AMP C.B.A.		NV-L25EI(NLA)
					[SUPPLIED FROM M.B.V]
			CAPACITORS		
C501		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C502		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C505		ECUM1H560JCN	C.CAPACITOR CH 50V 56P	1	
C507		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C508		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C509		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C510,11		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C512		ECUM1H820JCN	C.CAPACITOR CH 50V 82P	1	
C513		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C514		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C515		ECUM1H181JCN	C.CAPACITOR CH 50V 180P	1	
C516		ECUM1H330JCN	C.CAPACITOR CH 50V 33P	1	
C517		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C518		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C522		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	NV-L25EV/EO
C523		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C524		ECUM1H330JCN	C.CAPACITOR CH 50V 33P	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C525		VCYD1C104MR1	S.CAPACITOR 16V 0.1U	1	
C526		ECUM1H330JCN	C.CAPACITOR CH 50V 33P	1	NV-L25EV/EO
C527		VCYD1C104MR1	S.CAPACITOR 16V 0.1U	1	NV-L25EV/EO
C528		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C529		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C530		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C531		ECUM1H470JCN	C.CAPACITOR CH 50V 47P	1	
C532		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C533		ECUM1H470JCN	C.CAPACITOR CH 50V 47P	1	
C534,35		ECEA1CK100	E.CAPACITOR 16V 10U	2	
C536		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C537		ECUM1H470JCN	C.CAPACITOR CH 50V 47P	1	
C538		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C539		ECUM1H470JCN	C.CAPACITOR CH 50V 47P	1	
C540		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C541		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C542		ECCF1H080DC	C.CAPACITOR 50V 8P	1	
IC501		BA7274S	IC	1	
L501		VLQEL05F101K	COIL 100UH	1	
L503		VLQEL05F270K	COIL 27UH	1	
L504		VLQEL05F101K	COIL 100UH	1	
L505		VLQEL05F820K	COIL 82UH	1	
L506		VLQEL05F151K	COIL 150UH	1	
P002		VJS1449	CONNECTOR (FEMALE)	1	
P501		VJP1931T	CONNECTOR (MALE)	1	
Q501		2SB709	TRANSISTOR CHIP	1	(Q,R,S)
Q502		2SC2295	TRANSISTOR	1	
QR501		DTC363EK	TRANSISTOR-RESISTOR	1	
			RESISTORS		
R501		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R502		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R503		ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R504		ERJ6GMYJ391	M.RESISTOR CH 1/10W 390	1	
R506		ERJ6GMYJ204	M.RESISTOR CH1/10W 200K	1	
R507		ERJ6GMYJ561	M.RESISTOR CH 1/10W 560	1	
R508		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R509		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R510		ERJ6GMYJ331	M.RESISTOR CH 1/10W 330	1	
R512		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R513		ERJ6GMYJ330	M.RESISTOR CH 1/10W 33	1	
R515		ERJ6GMYJ330	M.RESISTOR CH 1/10W 33	1	
R518		ERJ6GMYJ330	M.RESISTOR CH 1/10W 33	1	
R519		ERJ6GMYJ471	M.RESISTOR CH 1/10W 470	1	
R520		ERJ6GMYJ471	M.RESISTOR CH 1/10W 470	1	NV-L25EV/EO
R523		ERJ6GMYJ821	M.RESISTOR CH 1/10W 820	1	
R524		ERJ6GMYJ100	M.RESISTOR CH 1/10W 10	1	
R525		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R526		ERJ6GMYJ100	M.RESISTOR CH 1/10W 10	1	
R527		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R528		ERJ6GMYJ821	M.RESISTOR CH 1/10W 820	1	
R529		ERJ6GMYJ561	M.RESISTOR CH 1/10W 560	1	
R530		ERJ6GMYJ100	M.RESISTOR CH 1/10W 10	1	
R531		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R532		ERJ6GMYJ100	M.RESISTOR CH 1/10W 10	1	
R533		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R534-36		ERJ6GMYJ561	M.RESISTOR CH 1/10W 560	3	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
VR501		EVND1AA00B23	V.RESISTOR 2K	1	
VR502		EVND1AA00B13	V.RESISTOR 1K	1	
			MISCELLANEOUS		
		VSC2668	SHIELD BOX(TOP)	1	
		VSC2669	SHIELD BOX(BOTTOM)	1	
		VSC2670	SHIELD BOX(MAIN)	1	
	■	VEP06558A	OPERATION C.B.A.		NV-L25EV/EO(NLA)
	■	VEP06558G	OPERATION C.B.A.		NV-L25EI(NLA)
					[SUPPLIES FROM M.B.V]
			CAPACITORS		
C4301		ECEA1CKS100	E.CAPACITOR 16V 10U	1	
C4302		ECEA1CK470	E.CAPACITOR 16V 47U	1	
C6201		ECEA1CK470U	E.CAPACITOR 16V 47U	1	
C6202		ECEA1HK010	E.CAPACITOR 50V 1U	1	
D6203		LN28RCPP	LED	1	
J4301		VJJ0214	MIC JACK	1	
P6201		VJP2652	CONNECTOR (MALE)	1	
P6202		VJP1244T	CONNECTOR (MALE) 4P	1	
PP6201		VJP2648	CONNECTOR (MALE)	1	
PS4301		VJS2648	CONNECTOR (FEMALE)	1	
Q4301		2SC2405	TRANSISTOR	1	
Q4302		2SA1034	TRANSISTOR	1	
			RESISTORS		
R4301		ERJ6GMYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R4302		ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	1	
R4303		ERJ6GMYJ153	M.RESISTOR CH 1/10W 15K	1	
R4304		ERJ6GMYJ104	M.RESISTOR CH 1/10W 100K	1	
R4305		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R4306		ERJ6GMYJ331	M.RESISTOR CH 1/10W 330	1	
R4307,08		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	2	
R6201		ERJ6GMYJ181	M.RESISTOR CH 1/10W 180	1	
R6202		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R6207		ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	1	
SW6201-07		EVQ11407K	SWITCH	7	
SW6210		EVQ11407K	SWITCH	1	NV-L25EV/EO
SW6211		VSS0187	SWITCH	1	
SW6213		VSS0236	SWITCH	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
VR3004		EWAKFKXC3B24	V.RESISTOR 20K	1	
			MISCELLANEOUS		
		VMD0504	LED HOLDER	1	
		VGU4553	KNOB	1	
	■	VEP01379E	POWER C.B.A.		NV-L25EV/EO(NLA)<!>
	■	VEP01379D	POWER C.B.A.		NV-L25EI(NLA)<!>
					[SUPPLIED FROM M.B.V]
			CAPACITORS		
C1101		ECQU2A224MNB	P.CAPACITOR 100V 0.22U	1	NV-L25EV/EO
C1101		ECQU2A154MNB	P.CAPACITOR 100V 0.15U	1	NV-L25EI
C1102		ECQU2A154MNB	P.CAPACITOR 100V 0.15U	1	NV-L25EV/EO
C1102		ECQU2A104MN	P.CAPACITOR 100V 0.1U	1	NV-L25EI
C1108		ECOS2GU820	C.CAPACITOR 400V 82P	1	
C1109		ECEA2GG010	E.CAPACITOR 400V 1U	1	
C1110		ECQE6473JZ	P.CAPACITOR 630V 0.047U	1	
C1111		ECKD3D331KBN	C.CAPACITOR 2KV 330P	1	
C1113		ECQB1H472KZ	P.CAPACITOR 50V 4700P	1	
C1114		ECEA1CGE470	E.CAPACITOR 16V 47U	1	
C1115		ECQB1H472KZ	P.CAPACITOR 50V 4700P	1	
C1117		ECQP1101JZ	P.CAPACITOR 100V 100P	1	
C1118		ECEA1HGE101	E.CAPACITOR 50V 100U	1	
C1119,20		ECEA1DFZ681X	E.CAPACITOR 20V 680U	2	
C1121		ECEA1HGE100	E.CAPACITOR 50V 10U	1	
C1122		ECEA1AFZ331X	E.CAPACITOR 10V 330U	1	
C1123		ECEA1HGE100	E.CAPACITOR 50V 10U	1	
C1124,25		ECEA1AGE101	E.CAPACITOR 10V 100U	2	
C1126		ECEA1CGE470	E.CAPACITOR 16V 47U	1	
C1127		ECEA0JFZ471	E.CAPACITOR 6.3V 470U	1	
C1128-31		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	4	
C1132		ECEA1CGE100	E.CAPACITOR 16V 10U	1	
C1134,35		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	2	
C1136		ECQV1H105JZ	P.CAPACITOR 50V 1U	1	
C1137		ECQV1H223JS	P.CAPACITOR 50V 0.022U	1	
C1140		VCK0046	C.CAPACITOR 2200P	1	NV-L25EV/EO
C1141		VCK0046	C.CAPACITOR 2200P	1	NV-L25EV/EO
C1142		VCC0021	C.CAPACITOR 470P	1	NV-L25EI
C1142		VCC0024	C.CAPACITOR 2200P	1	NV-L25EV/EO
C1143		VCK0046	C.CAPACITOR 2200P	1	NV-L25EV/EO
C1144		VCK0046	C.CAPACITOR 2200P	1	NV-L25EV/EO
C1145		VCC0021	C.CAPACITOR 470P	1	NV-L25EI
C1145		VCC0024	C.CAPACITOR 2200P	1	NV-L25EV/EO
C1146		VCK0046	C.CAPACITOR 2200P	1	NV-L25EV/EO
C1147		VCC0022	C.CAPACITOR 1000P	1	NV-L25EI
C1147		VCC0024	C.CAPACITOR 2200P	1	NV-L25EV/EO
C1148		VCK0046	C.CAPACITOR 2200P	1	NV-L25EV/EO
C1149		ECKF1H821KB	C.CAPACITOR 50V 820P	1	
D1101		SNR-300K4	SURGE ABSORBER	1	NV-L25EV/EO
D1102		S1WBA60	DIODE	1	
D1103		VSD0002	DIODE	1	
D1104		AP01C	DIODE	1	
D1105		MA178	DIODE	1	
D1106		MA4039	DIODE	1	
D1107		MA165	DIODE	1	
D1108		ERA22-02	DIODE	1	
D1109		RL2ZP	DIODE	1	
D1110		MA185	DIODE	1	
D1111		11EQS04	DIODE	1	
D1112		ERB83-004L17	DIODE	1	
D1113		MA2200B	DIODE	1	
D1114		MA4130L	DIODE	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
IC1101		STRD1816	IC	1	
IC1102		STK5392	IC	1	
L1101		ELF18D290A	FILTER	1	NV-L25EI
L1102		ELF18D221F	FILTER	1	NV-L25EV/EO
L1102		ELF18D290A	FILTER	1	NV-L25EI
L1103		VLQ0335	COIL H	1	
P1101		VJP1394T	CONNECTOR(MALE)	1	
P1102		VJS2625	CONNECTOR (FEMALE)	1	
Q1102		2SD1330	TRANSISTOR	1	
			RESISTORS		
R1101		ERC12AGM334	S.RESISTOR 1/2W 330K	1	
R1102,03		ERG2SJ823	M.RESISTOR 2W 82K	2	
R1104		ERDS2TJ562	C.RESISTOR 1/4W 5.6K	1	
R1106		ERG3ANJ683	M.RESISTOR 3W 68K	1	
R1108		ERD2FCVG182	C.RESISTOR 1/4W 1.8K	1	
R1111		ERG2SJ181	M.RESISTOR 2W 180	1	
R1113		ERG1SJ182E	M.RESISTOR 1W 1.8K	1	
R1114		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R1118		ERDS2TJ1R0	C.RESISTOR 1/4W 1.0	1	
R1123,24		ERDS2TJ153	C.RESISTOR 1/4W 15K	2	
R1125		ERW1PK2R2	WIRE WOUND 2W 2.2	1	
T1101		VLT0571	TRANSFORMER	1	
			MISCELLANEOUS		
		VJF0318	FUSE HOLDER	2	<!>
		VMZ1361	CAPACITOR COVER	1	NV-L25EV/EO
		VMZ0913	CAPACITOR COVER	1	NV-L25EV/EO
		VMZ1183	CAPACITOR COVER(A)	1	NV-L25EI
		VMZ1184	CAPACITOR COVER(B)	1	NV-L25EI
	■	VEP66079G	REMOTE CONTROLLER C.B.A.		(NLA)
			CAPACITORS		
C6801		ECEA1AKA470	E.CAPACITOR 10V 47U	1	
C6802		ECUM1E104ZFM	C.CAPACITOR CH 25V 0.1U	1	
C6803		ECEV1CAN4R7	E.CAPACITOR 16V 4.7U	1	
C6804		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C6805,06		ECUM1H330JCN	C.CAPACITOR CH 50V 33P	2	
C6807-09		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	3	
C6810-12		ECUM1E104ZFM	C.CAPACITOR CH 25V 0.1U	3	
D6801		SE303ACYTF	DIODE	1	
D6802-12		MA221	DIODE	11	
D6813		MA221	DIODE	1	
D6818		MA221	DIODE	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
IC6801		MN158453VHM	IC	1	
IC6802		AN8355S	IC	1	
L6801		ELT3K017B	COIL	1	
Q6801		2SB710	TRANSISTOR CHIP	1	(Q,R,S)
Q6802		2SB709	TRANSISTOR CHIP	1	(Q,R,S)
Q6803		2SD601	TRANSISTOR CHIP	1	(Q,R,S)
QR6802		FA1A4M	RESISTOR-RESISTOR	1	
QR6803		FA1L4Z	TRANSISTOR-RESISTOR	1	
			RESISTORS		
R14		ERJ6GMYJ473	CHIP 1/10W 47K	1	
R15		ERJ6GMYJ153	M.RESISTOR CH1/10W 15K	1	
R16		ERJ6GMYJ334	M.RESISTOR CH1/10W 330K	1	
R6801		ERJ6GMYJ224	CHIP 1/10W 220K	1	
R6802-04		ERJ6GMYJ474	CHIP 1/10W 470K	3	
R6805,06		ERJ6GMYJ682	CHIP 1/10W 6.8K	2	
R6807		ERJ8GCYJ120	M.RESISTOR CH 1/8W 12	1	
R6808		ERJ8GCYJ150	M.RESISTOR CH 1/8W 15	1	
R6809		ERJ6GMYJ222	CHIP 1/10W 2.2K	1	
R6810		ERJ6GMYJ224	CHIP 1/10W 220K	1	
R6811		ERJ6GMYJ684	CHIP 1/10W 680K	1	
R6812		ERJ6GMYJ563	CHIP 1/10W 56K	1	
R6813		ERJ6GMYJ120	CHIP 1/10W 12	1	
SN6801		VSQ0567	SENSOR	1	
VR6801		EVNDXAA03B34	V.RESISTOR 30K	1	
X6801		VSX0245	CRYSTAL OSCILLATOR	1	
X6802		EFBAL30D001K	CRYSTAL OSCILLATOR	1	
	■	VEP00K88C	FE HEAD C.B.A.		(NLA)
			CAPACITORS		
C1401		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C1402		ECQB1H472JH	P.CAPACITOR 50V 4700P	1	
C1403		ECQB1H333KH	P.CAPACITOR 50V 0.033U	1	
CR1401		EXED103Z333	C & R	1	
L1401		VLQEL05F101K	COIL 100UH	1	
P1502		VJP1148	CONNECTOR	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
Q1401		2SD636	TRANSISTOR	1	(R)
T1401		EIQ7QF012Q	TRANSFORMER	1	
	■	VXA3554	MECHANISM CONNECTION C.B.A.		(NLA)
P1504		VJS2342W	CONNECTOR 13P	1	
P1505		VJP1242T	CONNECTOR 2P	1	
IC1501		ON2170	PHOTO COUPLER	1	
D1501		GL450	LED	1	
R1501,02		ERJ8GCYJ223	CHIP 1/8W 22K	2	
			MISCELLANEOUS		
		VMB2020	EARTH SPRING	1	
		VMD0911	LED SPRING	1	
		VSS0175	MODE SW	1	
		VES0489	SAFETY SW	1	
	■	VEK3578	PHOTO TR.(S) C.B.A.		(NLA)
C1501		ECKF1H102KB	C.CAPACITOR 50V 1000P	1	
Q1501		PN150NV	PHOTO TR	1	
			MISCELLANEOUS	1	
		VMD0645	PHOTO TR HOLDER	1	
			PHOTO TR.(T) C.B.A.		THIS PART IS INCLUDE
					IN SLIDE SW UNIT
					(VXA3498)
C1502		ECKF1H102KB	C.CAPACITOR 50V 1000P	1	
P1508		VJS2165	CONNECTOR 6P	1	
Q1502		PN150NV	PHOTO TR	1	
R1503		ERDS2TJ222	C.RESISTOR 1/4W 2.2K	1	
			MISCELLANEOUS		
		VMD0645	PHOTO TR HOLDER	1	

VW-VPS5
MECHANICAL REPLACEMENT PARTS LIST

Note:1.* Be sure to make your orders of replacement parts according to this list.
2.IMPORTANT SAFETY NOTICE
Components identified with the mark <!> have the special characteristics for safety. When replacing any of these components,use only the same type.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
**********		VW-VPS5			
		VQT3254	OPERATING INSTRUCTIONS	1	

VW-VPS5
ELECTRICAL REPLACEMENT PARTS LIST

Note:1.* Be sure to make your orders of replacement parts according to this list.
2.IMPORTANT SAFETY NOTICE
Components identified with the mark <!> have the special characteristics for safety. When replacing any of these components,use only the same type.
3.Unless otherwise specified,
All resistors are in OHMS ,K=1,000 OHMS. All capacitors are in MICROFARADS(uf),P=uuF.
4.The P.C.Board units marked width'■'show below the main assembled parts.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
*********		VW-VPS5			
	■	VEP07538B	VPS C.B.A.		(NLA)
			CAPACITORS		
C7801		ECQB1H102JH	P.CAPACITOR 50V 1000P	1	
C7802		ECQB1H471JH	P.CAPACITOR 50V 470P	1	
C7803		ECQB1H472JH	P.CAPACITOR 50V 4700P	1	
C7804		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C7805		ECQB1H103JH	P.CAPACITOR 50V 0.01U	1	
C7806		ECQB1H333JH	P.CAPACITOR 50V 0.033U	1	
C7815		VCYD1C104MR1	S.CAPACITOR 16V 0.1U	1	
C7816		ECEA0JKA331	E.CAPACITOR 6.3V 330U	1	
C7851		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C7852		ECEA1AK101	E.CAPACITOR 10V 100U	1	
C7853,54		ECCF1H330JC	C.CAPACITOR 50V 33P	2	
C7855,56		ECEA1HK010	E.CAPACITOR 50V 1U	2	
C7860		ECEA0JK101U	E.CAPACITOR 6.3V 100U	1	
D7851		MA165	DIODE	1	
IC7801		SAA4700	IC	1	
IC7851		MN158413VHW	IC	1	
IC7852		MN1280S	IC	1	
PK1		VJR0189	PACK PIN	1	
QR7851		UN1211	TRANSISTOR-RESISTOR	1	
QR7852		UN1213	TRANSISTOR-RESISTOR	1	
			RESISTORS		
R7801		ERDS2TJ472	C.RESISTOR 1/4W 4.7K	1	
R7802		EROS2CKG7502	M.RESISTOR 1/4W 75K	1	
R7803,04		ERDS2TJ103	C.RESISTOR 1/4W 10K	2	
R7805		ERDS2TJ473	C.RESISTOR 1/4W 47K	1	
R7806		EROS2CKG3601	M.RESISTOR 1/4W 3.6K	1	
R7851		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R7852		ERDS2TJ332	C.RESISTOR 1/4W 3.3K	1	
R7860		ERDS2TJ471	C.RESISTOR 1/4W 470	1	
X7851		EF0A4R0M03C2	CRYSTAL OSCILLATOR	1	

ORDER NO. VRD8902M109

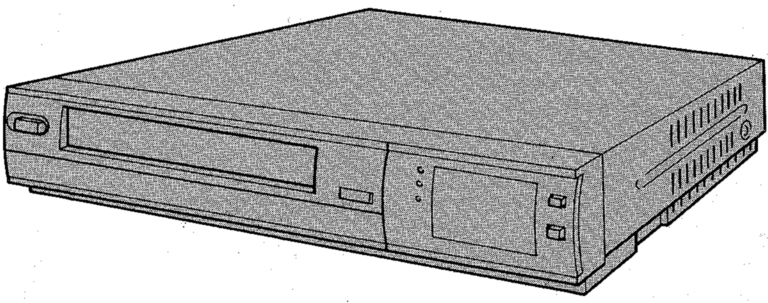
Service Manual

Video Cassette Recorder

Panasonic VHS HQ
PAL

NV-L25$^{EG}_{B}$

General Description
Adjustment Procedures
Block / Schematic Diagrams
Exploded Views / Parts List



SPECIFICATIONS

ITEM	SPECIFICATION	
POWER	SOURCE: 220 V 50/60 Hz (NV-L25EG) 240 V 50/60 Hz (NV-L25B)	
	CONSUMPTION: 22 W	
RECORDING SYSTEM	2 rotary heads, helical scanning system	
	PAL	
TV TUNER SYSTEM	NV-L25EG	VHF I : CHE2~CHE4 VHF III: CHS4~CHE12 VHF H: CHS11~CHS41 (PAL/SECAM B) 75Ω unbalanced UHF: CH21~CH69 (PAL/SECAM G) 75Ω unbalanced
	NV-L25B	UHF: CH21~CH69 (PAL I) 75Ω unbalanced
RF OUT SYSTEM	UHF: CH36±4 (PAL/SECAM G) 73^{+2}_{-3}dBμ, 75Ω terminated (NV-L25EG) UHF: CH36±4 (PAL I) 73±3dBμ, 75Ω terminated (NV-L25B)	
VIDEO	HEADS: 4 rotary heads 1 pair for recording, playback (L-R heads) 1 pair for trick play (L′-R′ heads)	
	INPUT: VIDEO IN Connector (BNC type) 1.0 Vp-p, 75Ω terminated EURO AV Connector (21 pin) 1.0 Vp-p, 75Ω terminated (NV-L25EG)	
	OUTPUT: VIDEO OUT Connector (BNC type) 1.0 Vp-p, 75Ω terminated (NV-L25B) EURO AV Connector (21 pin) 1.0 Vp-p, 75Ω terminated (NV-L25EG)	

ITEM	SPECIFICATION
AUDIO	HEAD: 1 Stationary head (Normal Audio)
	INPUT: AUDIO IN Connector (Phono type) More than −10 dBV (316 mV), more than 50 kΩ EURO AV Connector (21 pin) More than −10 dBV (316 mV), more than 10 kΩ (NV-L25EG) MICROPHONE JACK 70 dBV
	OUTPUT: AUDIO OUT Connector (Phono type) −6 dBV (500 mV), Less than 1 kΩ (NV-L25B) EURO AV Connector (21 pin) −6 dBV (500 mV), Less than 1 kΩ (NV-L25EG)
TAPE FORMAT	VHS Cassette tape (Tape width 12.7 mm)
TAPE SPEED	SP: 23.39 mm/s LP: 11.695 mm/s (NV-L25B) Record/Playback Time: SP: 4 hours with 240 min. type tape LP: 8 hours with 240 min. type tape (NV-L25B) FF/REW Time 5.5 min. with 180 min. type tape
DIMENSIONS	380(W) × 82(H) × 343.5(D) mm
WEIGHT	5.2 kg (NV-L25EG) 5.0 kg (NV-L25B)
STANDARD ACCESSORIES	1 pc. DIN-RF Cable 1 pc. Infra-red remote controller (Build in Digital Scanner type) 1 pc. Programme sheet 1 pc. AC Mains Lead

Weight and dimensions shown are approximate.
Specifications are subject to change without notice.

Panasonic

Matsushita Electric Industrial Co., Ltd.
Central P.O. Box 288, Osaka 530-91, Japan

INTRODUCTION

This service manual contains technical information which will allow service personnels to understand and service this model.
Section 1 presents you with some general information of features and controls, enabling you to become familiar with each function.
Section 2 contributes to your mechanical and electrical adjustment as well disassembly and replacement procedures.
In the case of very common information relating to other models like mechanical adjustments, please refer to each service manual.
Section 3 contains block diagrams which offers you information for checking and understanding each circuit. Schematic diagrams which give you detailed information such as waveforms, voltage data, function e.t.c...
Section 4 contains exploded views and parts list.
Please place orders using the parts list and not the drawing reference numbers.
If the circuit is changed or modified, this information will be followed by supplementary service manual to be filed with original service manual.

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REMARKS (NV-L25EG ONLY)

1. It is possible to receive, record and play back colour broadcasts from East Germany (DDR) on this video recorder.
2. When a video tape that was recorded with a colour TV broadcast from East Germany on this VTR is played back on a SECAM (France) or on a PAL VTR, the picture may be in black and white.
3. When a video tape recorded on a SECAM (France)VTR or a SECAM (France) pre-recorded video tape is played back on this VTR, the picture is in black and white.

SERVICE INFORMATION

1-1.HOW TO CHECK THE CRACKED CHIP PART

(1) Apply heat to soldered portions of chip part by Soldering Iron for about 2 ~ 3 seconds.

(2) If chip part is cracked, chip part will be broken completely.

(CAUTIONS) When Soldering Iron puts on soldering portion of chip part too long time, chip part may be broken even if it is normally.

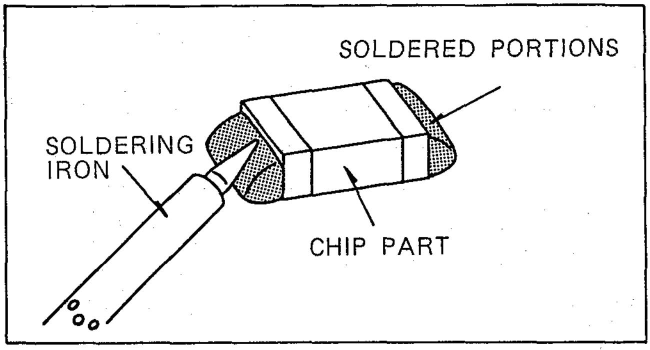

SOLDERED PORTIONS
SOLDERING IRON
CHIP PART

FIG. G1

(NOTE) Regarding the intermittent fault, the main causes are bad soldering or cracking of chip part.

1-2.HOW TO REPLACE THE CHIP PART

1) REMOVAL (RESISTOR, CAPACITOR, etc...)

(1) Presolder the one side of soldering portion for chip part and grasp the chip part by tweezers.

(2) Melt the presoldered portion. And then remove the chip part with a twisting motion while melting the soldering portion of another side quickly.

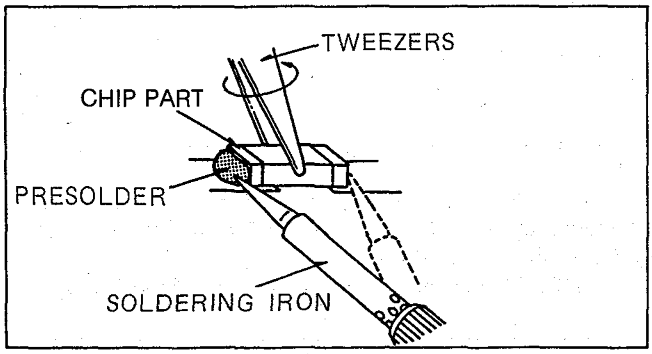

TWEEZERS
CHIP PART
PRESOLDER
SOLDERING IRON

FIG. G2

2) REMOVAL (transistor, diode, etc...)

(1) Grasp the chip part with tweezers and melt the solder of one lead.

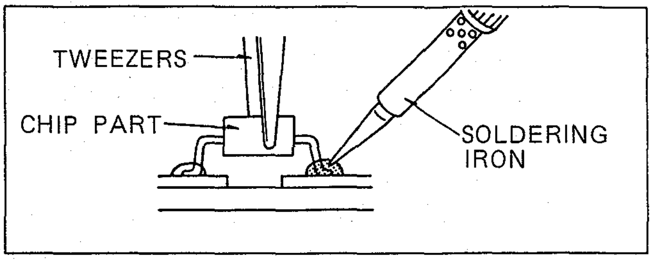

TWEEZERS
CHIP PART
SOLDERING IRON

FIG. G3

(2) Lift the side of that lead upward.

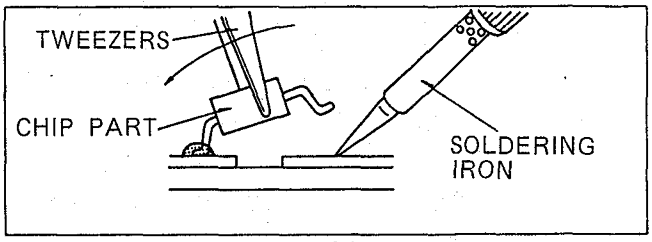

TWEEZERS
CHIP PART
SOLDERING IRON

FIG. G4

(3) Simultaneously heat the solder of the two remaining leads and lift part to remove.

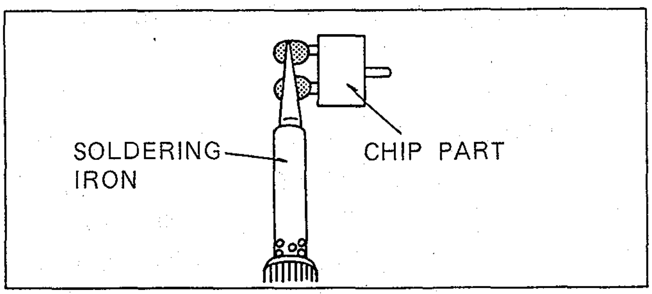

SOLDERING IRON
CHIP PART

FIG. G5

3) INSTALLATION

(1) Presolder the one side of contact point on the circuit board.

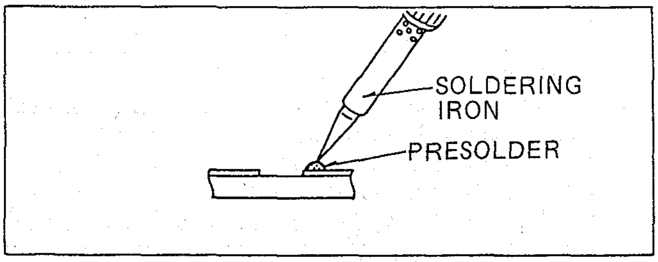

SOLDERING IRON
PRESOLDER

FIG. G6

(2) Install the chip part by using tweezers while applying the heat presoldering portion by Soldering Iron.

(3) Solder the another side of electrode for chip part.

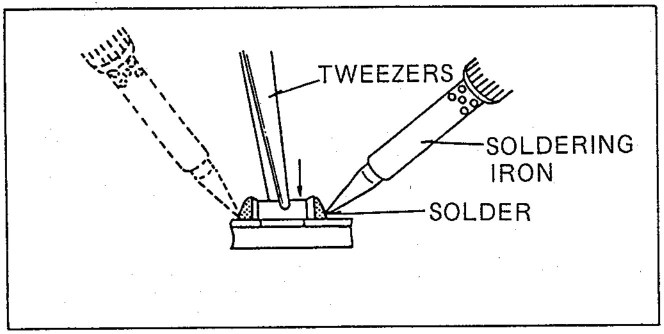

TWEEZERS
SOLDERING IRON
SOLDER

FIG. G7

1-3.HOW TO REMOVE THE FLAT-IC

(WITH HOT-AIR FLAT-IC DESOLDERING MACHINE)

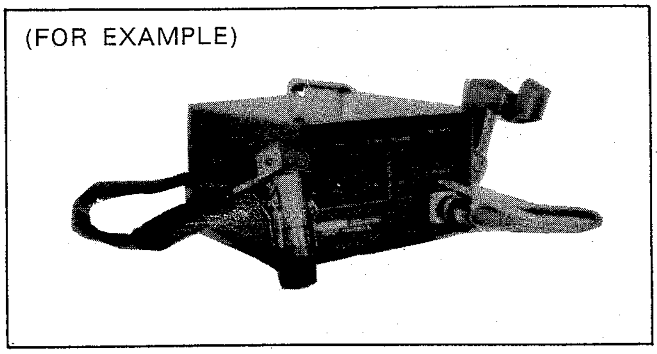

(FOR EXAMPLE)

FIG. G8

(1) Prepare the HOT-AIR FLAT-IC DESOLDERING MACHINE. And then apply hot air to FLAT-IC about 5 ~ 8 seconds.

(2) Remove the FLAT-IC with tweezers while applying the hot air.

(CAUTIONS) When applying the hot air for long time, the chip parts around the FLAT-IC may be had some damege.

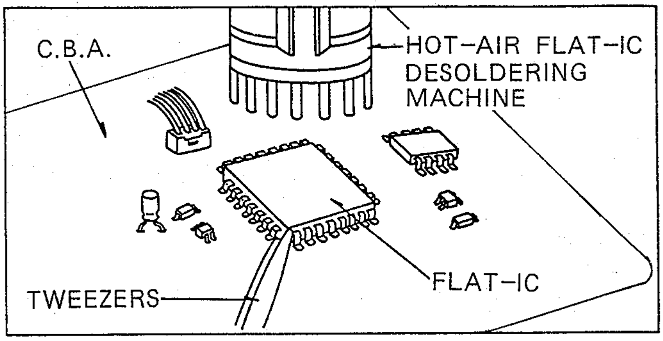

C.B.A.
HOT-AIR FLAT-IC DESOLDERING MACHINE
TWEEZERS
FLAT-IC

FIG. G9

(WITH SOLDERING IRON)

(1) Remove the solder of all leads of FLAT-IC by using de-solder braids.

(NOTE) In order to remove the solder of all leads of FLAT-IC easily, apply the Soldering Flux to all leads of FLAT-IC.

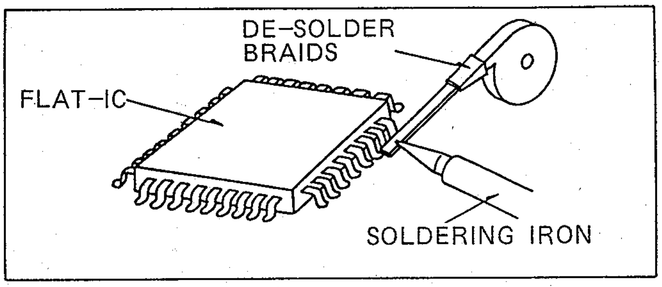

DE-SOLDER BRAIDS
FLAT-IC
SOLDERING IRON

FIG. G10

(2) Lift the leads of FLAT-IC upward one by one using sharp pin while applying the heat by soldering iron.

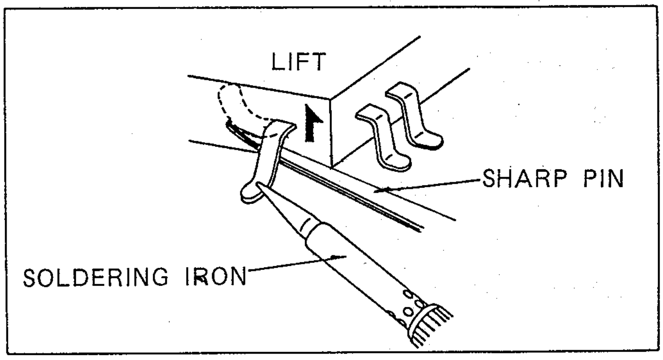
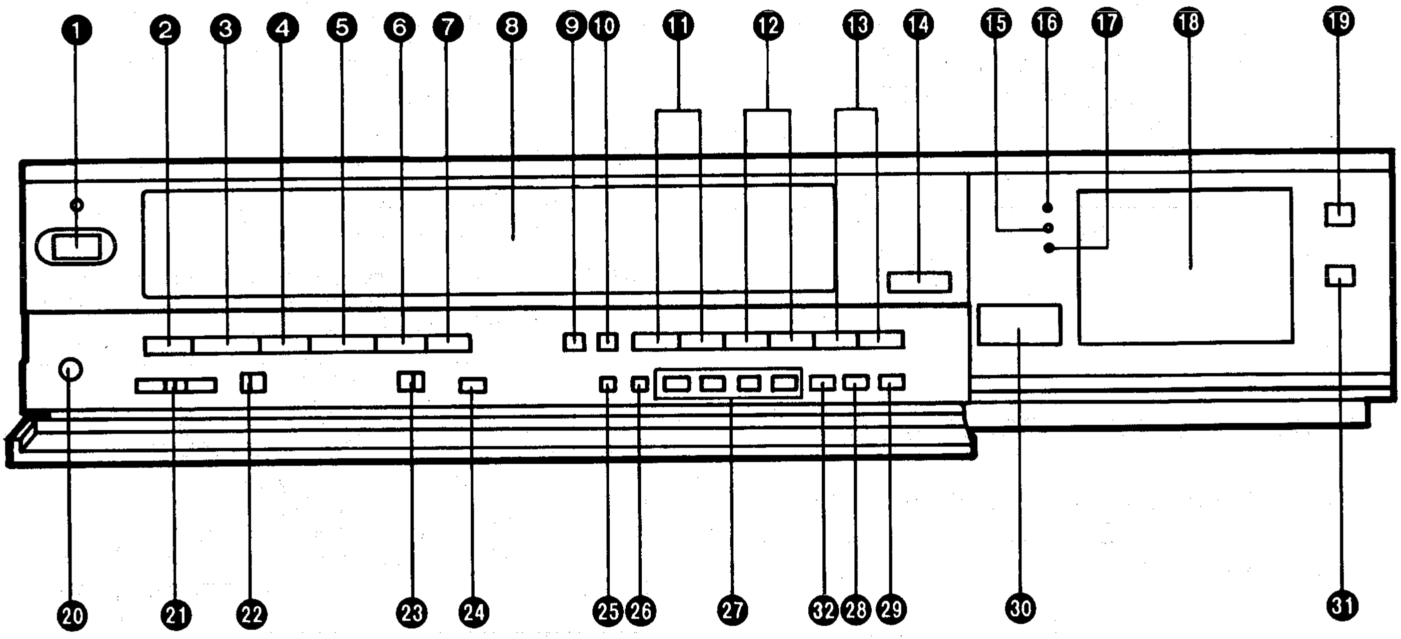

LIFT
SHARP PIN
SOLDERING IRON

FIG. G11

SECTION 1
GENERAL DESCRIPTIONS

1-1. CONTROLS AND COMPONENTS

FRONT



① VTR On/Off Switch with Indicator

② Rewind ◀◀/Review ⏪ Button

③ Play/×2 Button

④ Fast Forward ▶▶/Cue ⏩ Button

⑤ Stop Button (■)

⑥ Pause/Still Button (❚❚)

⑦ Record Button (●)

⑧ Cassette Compartment

⑨ Audio Dubbing Button

⑩ Insert Editing Button

⑪ Channel Selection Up and Down Buttons

⑫ OTR On Buttons

⑬ OTR Off Buttons

⑭ Eject Button (⏏)

⑮ Audio Dubbing Indicator

⑯ Insert Editing Indicator

⑰ Digital Tracking Indicator

⑱ Multi-Function Display

⑲ Clock/Counter Selector

⑳ Microphone Input Socket

㉑ Picture Sharpness Control

㉒ Noise Filter/Edit Selector

㉓ Digital Tracking Selector

When this selector is selected for "ON" and Tracking (+) and (−) button is pressed simultaneously, unit will search the best tracking position automatically. During searching , Digital tracking indicator will be flashing .
In the case of "OFF" position , when (+) and (−) button is pressed simultaneously , tracking is set for "electrical centre fix position" automatically.

㉔ Tape Speed Selector **(NV-L25B)**

㉕ Clock Button

㉖ Preset/Normal Button

㉗ Timer Controls

㉘ Memory Button

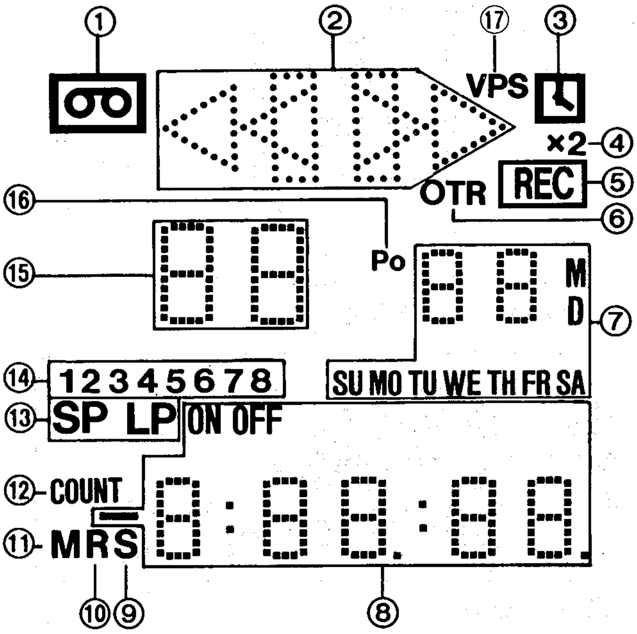
㉙ Timer Record Button

㉚ Infra-red Remote Control Receiver

㉛ Reset Button

㉜ AFC/VPS Button (NV-L25EG)

Multi-Function Display


①
②
⑰
VPS
③
×2-④
OTR
REC
⑤
⑥
⑯
⑮
Po
M
D
⑦
⑭
12345678
SU MO TU WE TH FR SA
⑬
SP LP
ON OFF
⑫-COUNT
⑪-MRS
⑩⑨
⑧

① Cassette-in Indicator

② Tape Running Display

③ Timer Recording Indicator

④ Double Speed Indicator

⑤ Recording Indicator

⑥ OTR Indicator

⑦ Date Display

⑧ Clock/Counter Indicator

⑨ Search Indicator

⑩ Repeat Indicator

⑪ Memory Indicator

⑫ Counter Mode Indicator

⑬ Tape Speed Indicator (NV-L25B)

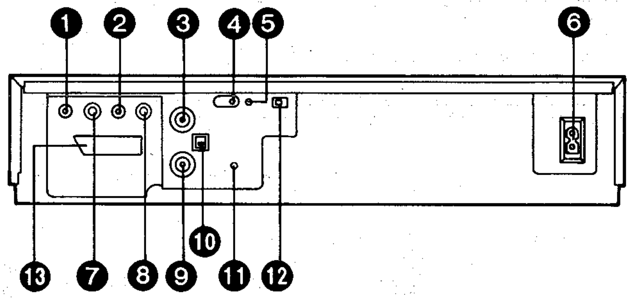
⑭ Timer Programme Number

⑮ Channel Display

⑯ Position Indicator

⑰ VPS Indicator (NV-L25EG)

REAR


❶
❷
❸
❹
❺
❻
⓭
❼
❽
❾
❿
⓫
⓬

❶ Audio Input Socket

❷ Audio Output Socket (NV-L25B)

❸ RF Output Socket

❹ Vertical Lock Controls

❺ Synchro Edit Socket

❻ AC Mains Lead Socket

❼ Video Input Socket

❽ Video Output Socket (NV-L25B)

❾ RF Input Socket

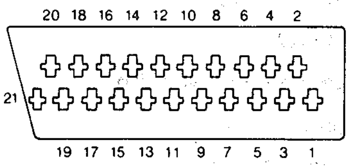
❿ RF Signal Level Switch (NV-L25B)

⓫ Video Playback Channel Selector

⓬ Test Signal Switch

⓭ Euro AV Socket (NV-L25EG)

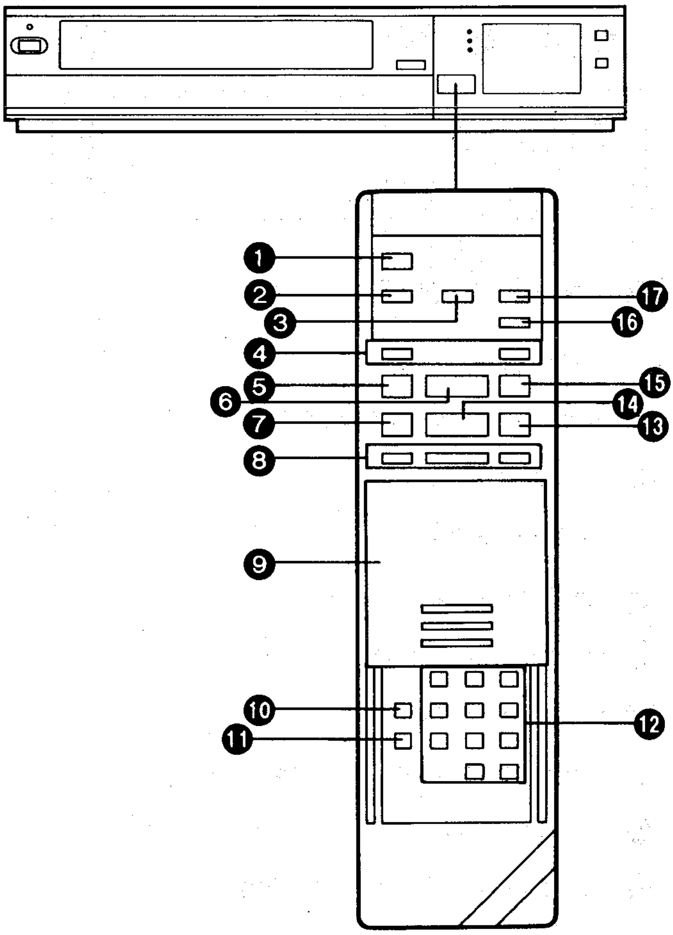
Conections of the Euro AV Socket


20 18 16 14 12 10 8 6 4 2
21
19 17 15 13 11 9 7 5 3 1

1 AUDIO OUTPUT
2 AUDIO INPUT
3 AUDIO OUTPUT
4 AUDIO GND
5 No connection
6 AUDIO INPUT
7 No connection
8 SWITCHING VOLTAGE
9 No connection
10 No connection
11 No connection
12 Noconnection
13 Noconnection
14 Noconnection
15 Noconnection
16 Noconnection
17 VIDEO GND
18 No connection
19 VIDEO OUTPUT
20 VIDEO INPUT
21 GND

1-2. INFRA-RED REMOTE CONTROLLER

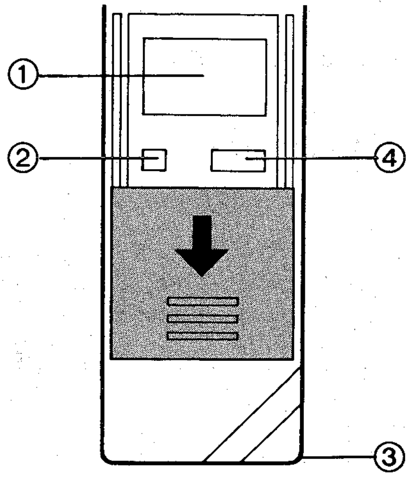
Part Number: VEQ0936 (NV-L25EG)
VEQ0935 (NV-L25B)



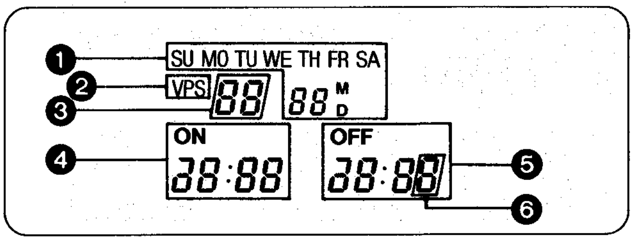
❶ **VTR On/Off Button**
❷ **Clock/Counter Selector**
❸ **Reset/Index Button**
❹ **Record Buttons (●)**
❺ **Pause/Still Button (❚❚)**
❻ **Stop Button (■)**
❼ **Rewind ◀◀/Review ⊟ Button**
❽ **Slow Buttons**
❾ **Mode Selector Cover**
❿ **Time Search Button**
⓫ **Monitor Button**
⓬ **Programme Position (Channel) Selector Buttons**
⓭ **Fast Forward ▶▶/Cue ⊟ Button**
⓮ **Play/×2 Button (▶)**
⓯ **Still Advance Button (❙▶)**
⓰ **Reverse Play Button**
⓱ **Memory/Repeat/Search Button**

Use as Digital Scanner

Slide the Mode Selactor Cover Downward.



① **Bar Code Reader Display**



❶ Date Display
❷ VPS Indicator (NV-L25EG)
❸ Channel Display
❹ Start Time Display
❺ End Time Display
❻ Check Indicator

② **Digital Scanner On/Off Button**
③ **Bar Code Reading Section**
④ **Transmit Button**

Note:
To be able to use the unit as Remote Controller, press the Digital Scanner On/Off Button (the indications in the LCD Display will disappear.

3.REMOVAL OF THE FRONT PANEL UNIT

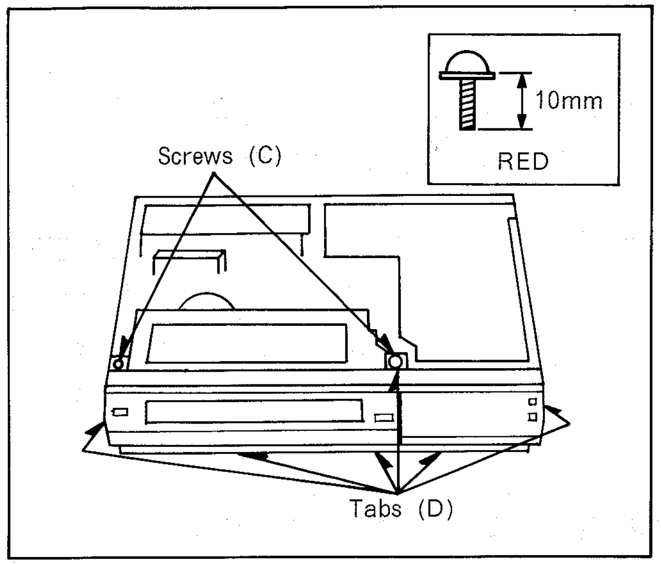

10mm
RED
Screws (C)
Tabs (D)

Fig. D4

Remove ... 2 Screws (C)
Unlock ... 6 Tabs (D)

4. REMOVAL OF THE OPERATION C.B.A. AND TIMER C.B.A.

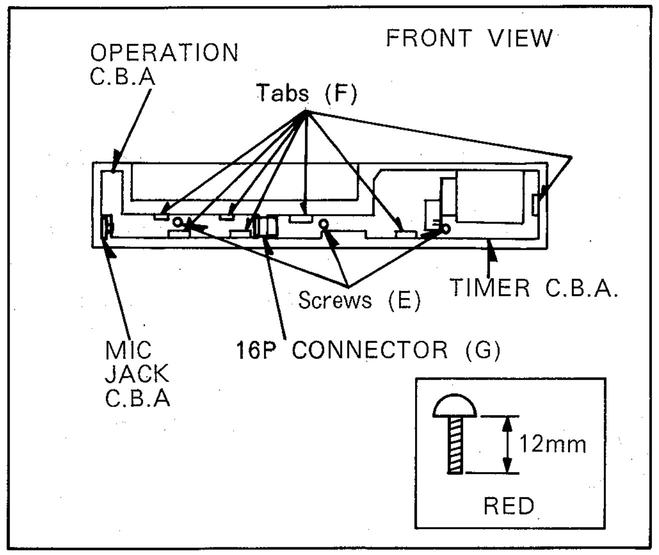

OPERATION
C.B.A
FRONT VIEW
Tabs (F)
Screws (E)
TIMER C.B.A.
MIC
JACK
C.B.A
16P CONNECTOR (G)
12mm
RED

Fig. D5

Remove ... 3 screws (E)
Unlock ... 7 Tabs (F)

NOTE:
There is 16P connector (G) which connects between Operation C.B.A. and Timer C.B.A.
When removing the connector (G) from Timer C.B.A., lift the part indicated by the arrow and remove it with Operation C.B.A. as show in Fig. D6.

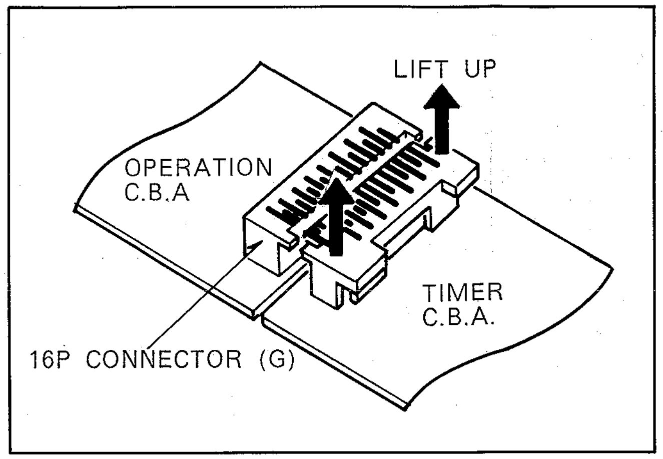

LIFT UP
OPERATION
C.B.A
TIMER
C.B.A.
16P CONNECTOR (G)

Fig. D6

NOTE:
If the connector is turned for checking the operatrion C.B.A. and Timer C.B.A.,the short circuit could be made between reed wires.
Be sure there is no short circuit between reed wires and check the both Operation & Timer C.B.As.

5. REMOVAL OF THE MAIN C.B.A. AND POWER SUPPLY UNIT

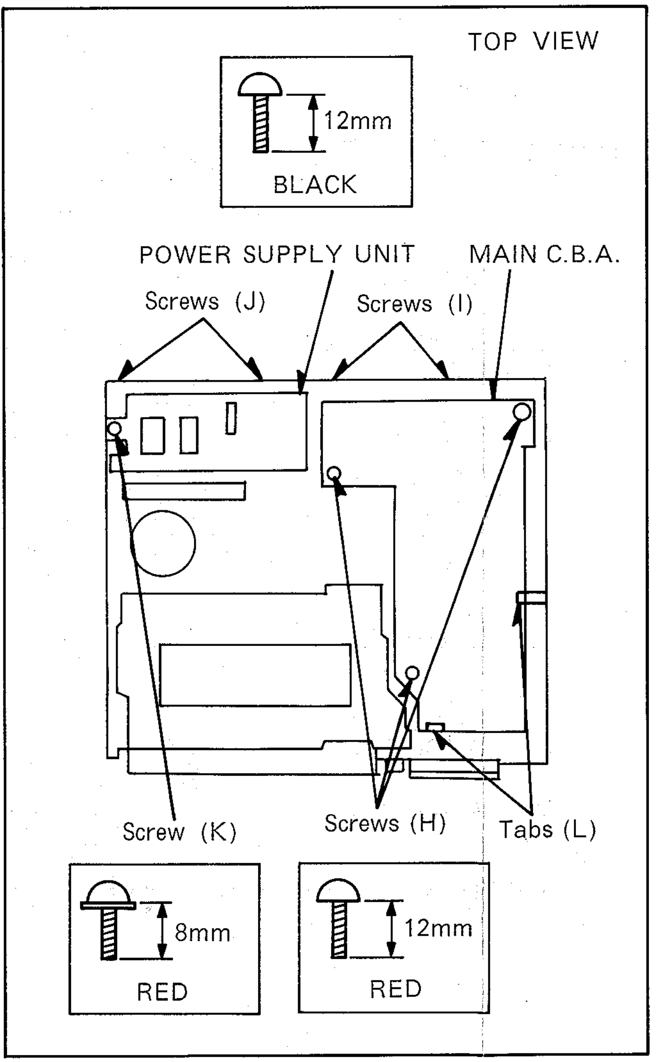

TOP VIEW
12mm
BLACK
POWER SUPPLY UNIT
MAIN C.B.A.
Screws (J)
Screws (I)
Screw (K)
Screws (H)
Tabs (L)
8mm
RED
12mm
RED

Fig. D7

REMOVAL OF THE MAIN C.B.A.

Remove ... 3 Screws (H), 2 Screws (I)
Unlock ... 2 Tab (L)

REMOVAL OF THE POWER SUPPLY UNIT

Remove ... Screw (K) , 2 Screws (J)

6. SERVICING

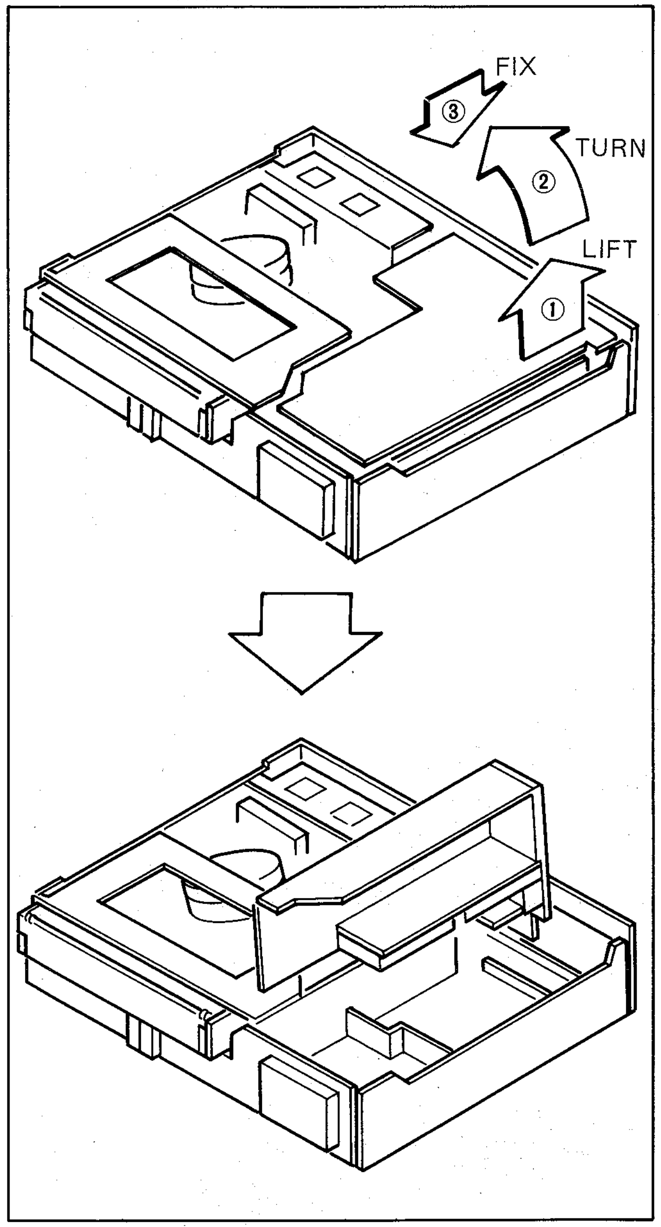

FIX
③
TURN
②
LIFT
①

Fig. D8

7. REMOVAL OF THE CASSETTE COMPERTMENT

Remove 2 screws (M) and slide the cassette holder until appearing 2 screws (N) by turning (clockwise) the capstan rotor unit (located in the bottom side) and then remove 2 screws (N).
Remove the flexible wire from connector P1503 mounted on Take-up photo Tr. C.B.A., then carefully pull out the cassette compartment.

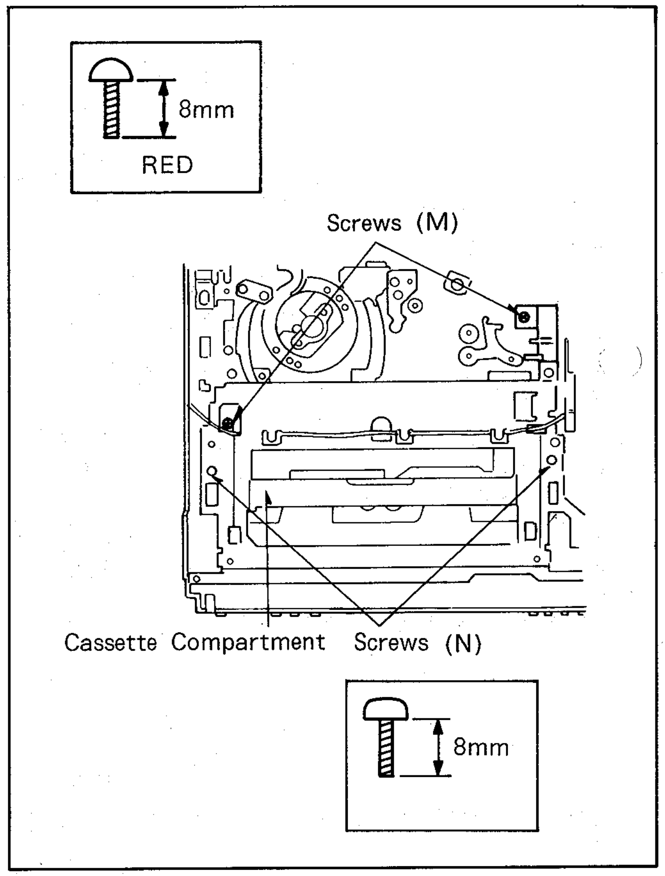

8mm
RED
Screws (M)
Cassette Compartment
Screws (N)
8mm

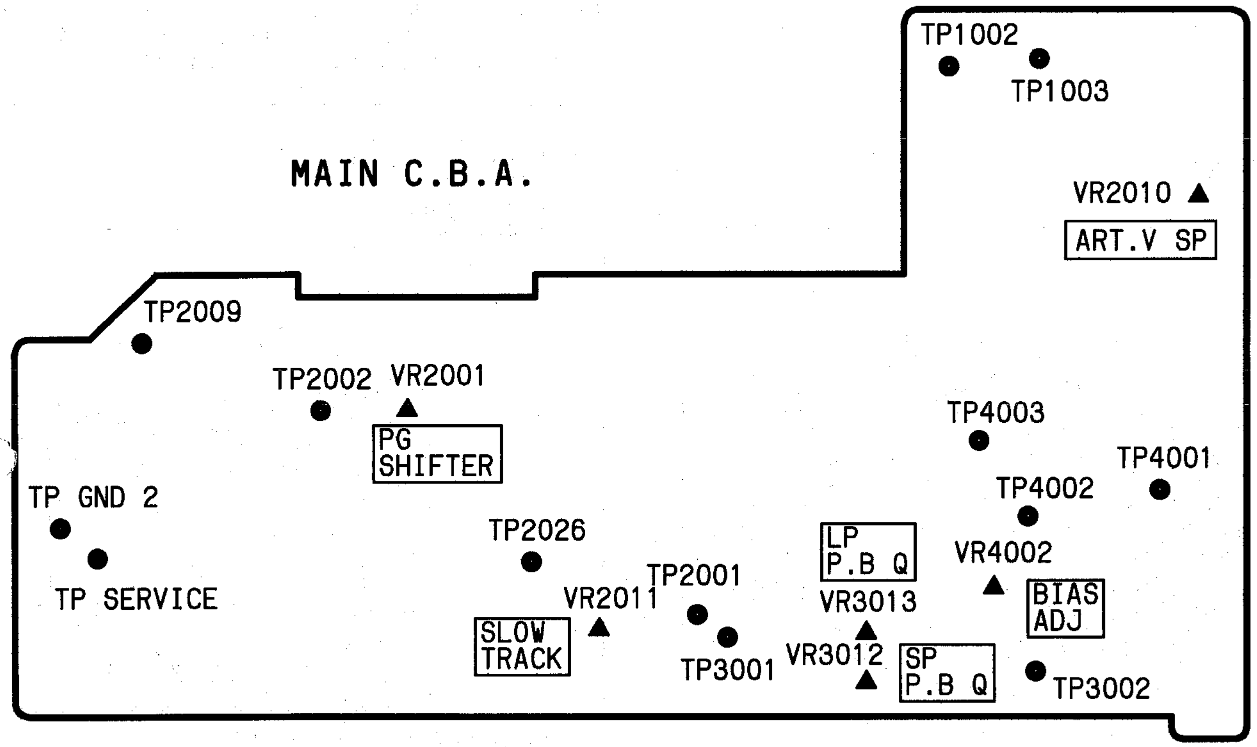
Fig. D9

2-2. MECHANICAL ADJUSTMENT PROCEDURES

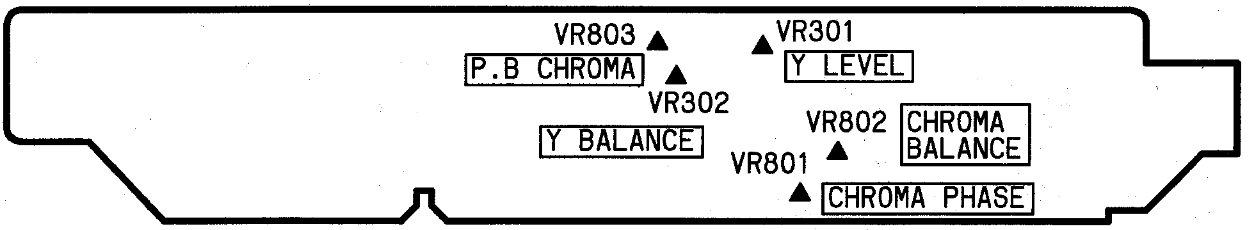
This mechanical chassis of these models NV-L25EG/B is the same as G-REV. Mechanical Chassis.
Therefore please refer to the Service Manual G-REV. Mechanical Chassis (Order No. VRD8901M101).

LOCATION OF TEST POINTS & CONTROLS

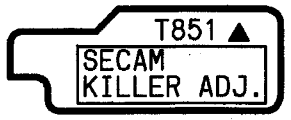
MAIN C.B.A.


TP1002
TP1003
VR2010
ART.V SP
TP2009
TP2002
VR2001
PG SHIFTER
TP4003
TP4001
TP4002
TP GND 2
TP SERVICE
TP2026
LP P.B Q
VR4002
TP2001
VR2011
VR3013
BIAS ADJ
SLOW TRACK
TP3001
VR3012
SP P.B Q
TP3002

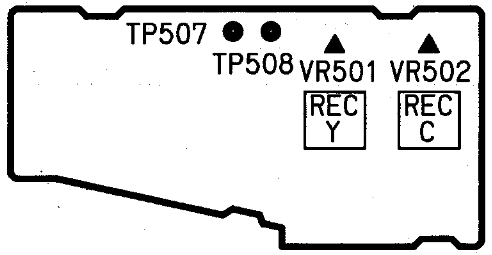
SUB MAIN C.B.A.


VR803
P.B CHROMA
VR301
Y LEVEL
VR302
VR802
CHROMA BALANCE
Y BALANCE
VR801
CHROMA PHASE

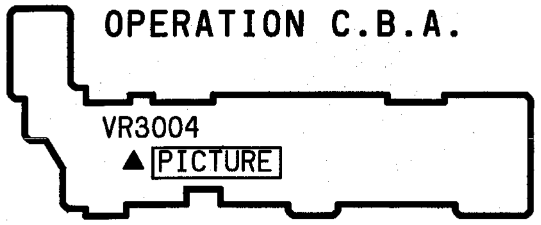
DDR SECAM PACK C.B.A. (NV-L25EG)


T851
SECAM KILLER ADJ.

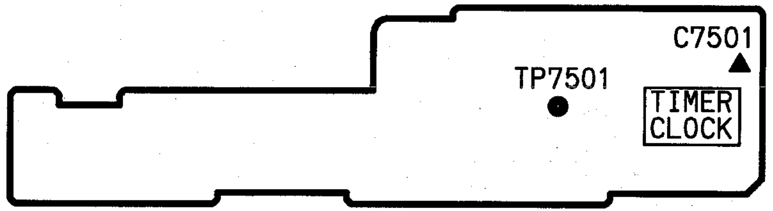
HEAD AMP C.B.A.


TP507
TP508
VR501
VR502
REC Y
REC C

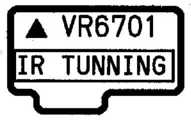
OPERATION C.B.A.


VR3004
PICTURE

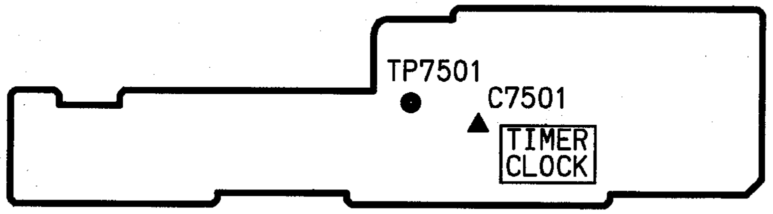
TIMER C.B.A. (NV-L25EG)


C7501
TP7501
TIMER CLOCK

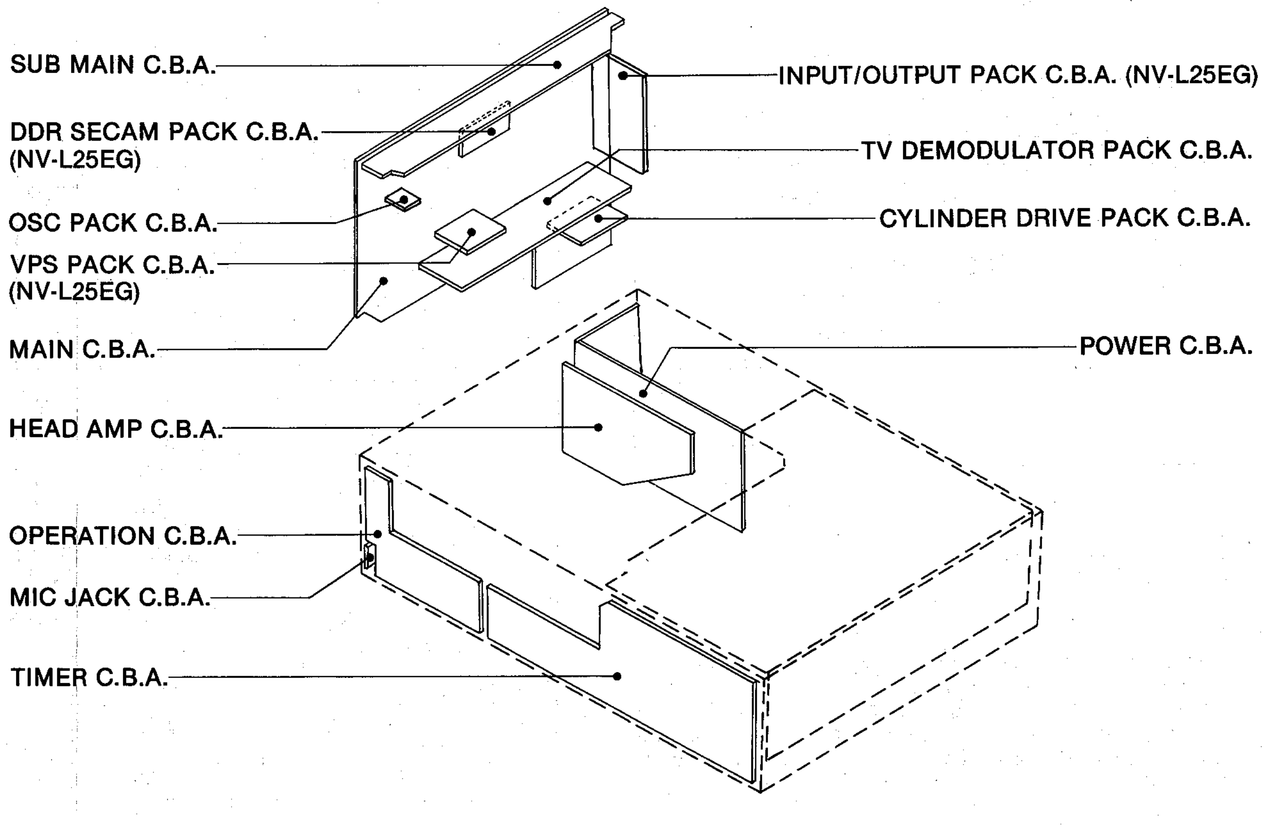
IR RECEIVER C.B.A.


VR6701
IR TUNNING

TIMER C.B.A. (NV-L25B)


TP7501
C7501
TIMER CLOCK

CIRCUIT BOARD LAYOUT


SUB MAIN C.B.A.
DDR SECAM PACK C.B.A. (NV-L25EG)
OSC PACK C.B.A.
VPS PACK C.B.A. (NV-L25EG)
MAIN C.B.A.
HEAD AMP C.B.A.
OPERATION C.B.A.
MIC JACK C.B.A.
TIMER C.B.A.
INPUT/OUTPUT PACK C.B.A. (NV-L25EG)
TV DEMODULATOR PACK C.B.A.
CYLINDER DRIVE PACK C.B.A.
POWER C.B.A.

SECTION 2
ADJUSTMENT PROCEDURES

2-1-1. DISASSEMBLY FLOW CHART

This flowchart indicates disassembly steps of the cabinet parts and the circuit boards in order to find the necessary items for servicing
When reassembling, perform the steps in the reverse order.

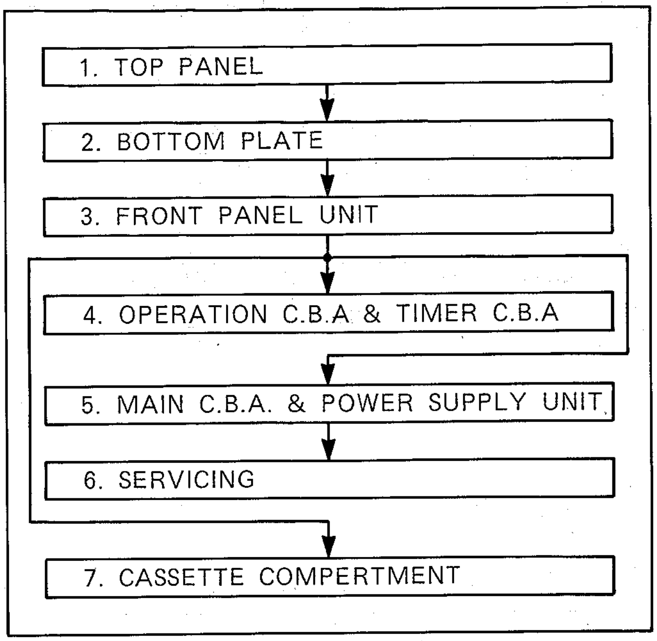

1. TOP PANEL
2. BOTTOM PLATE
3. FRONT PANEL UNIT
4. OPERATION C.B.A & TIMER C.B.A
5. MAIN C.B.A. & POWER SUPPLY UNIT
6. SERVICING
7. CASSETTE COMPERTMENT

Fig. D1

2-1-2. DETAIL OF DISASSEMBLE METHOD

1. REMOVAL OF THE TOP PANEL

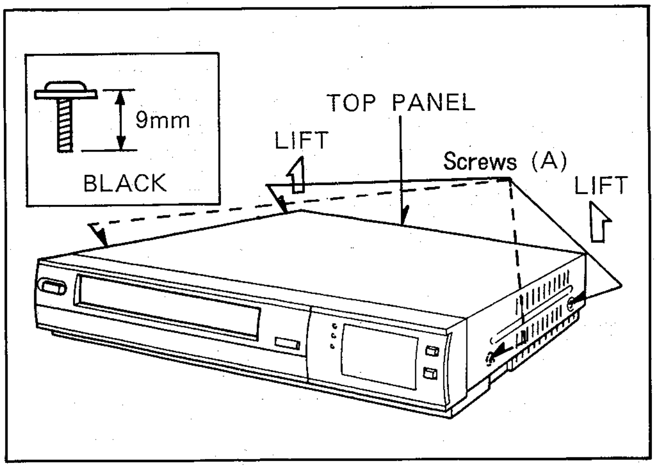

9mm
BLACK
TOP PANEL
LIFT
Screws (A)
LIFT

Fig. D2

Remove ... 4 Screws (A): NV-L25EG
Remove ... 2 Screws (A): NV-L25B

2. REMOVAL OF THE BOTTOM PLATE

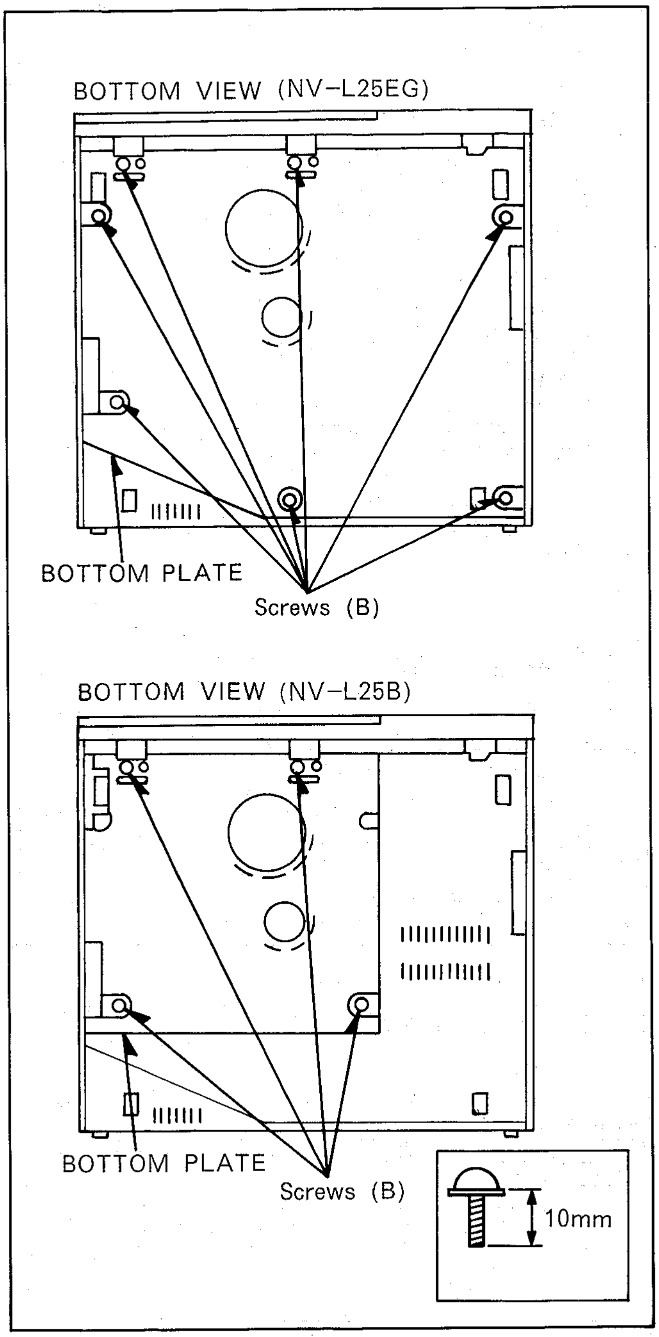

BOTTOM VIEW (NV-L25EG)
BOTTOM PLATE
Screws (B)
BOTTOM VIEW (NV-L25B)
BOTTOM PLATE
Screws (B)
10mm

Fig. D3

Remove ... 7 Screws (B): NV-L25EG
Remove ... 4 Screws (B): NV-L25B

2-3. ELECTRICAL ADJUSTMENT PROCEDURES

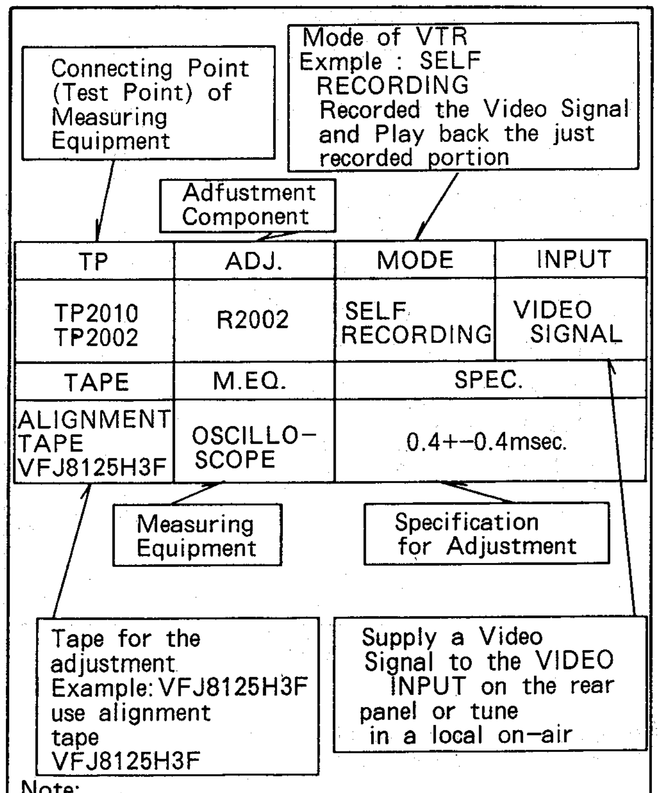
This section provides complete electrical adjustment procedures which may be required for electronic circuits of VHS Video Cassette Recorders.

2-3-1. TEST EQUIPMENTS

To perform the electrical adjustments completely, following equipments are required.

1. VTVM (Vacuum Tube Volt Meter) and DVM (Digital Volt Meter)
   Voltage Range: 0.001~50V
2. Dual-Trace Oscilloscope
   Voltage range: 0.005~50V/div.
   Frequency Range: DC~30MHz
   Probes: 10:1
3. Frequency counter
   Frequency Range: 0~10MHz
4. Signal Generator (Sinewave)
   Frequency Range: 0~500KHz
5. Video Sweep Generator
   Frequency Range: 0~10MHz
6. Colour Monitor TV
7. Plaastic Tip Driver
8. VHS Alignment Tape (VFJ8125H3F)
9. Pattern Generator

2-3-2. HOW TO READ THE ADJUSTMENT PROCEDURES


Connecting Point (Test Point) of Measuring Equipment
Mode of VTR
Exmple : SELF RECORDING
Recorded the Video Signal and Play back the just recorded portion
Adfustment Component
TP
ADJ.
MODE
INPUT
TP2010
TP2002
R2002
SELF RECORDING
VIDEO SIGNAL
TAPE
M.EQ.
SPEC.
ALIGNMENT TAPE VFJ8125H3F
OSCILLO-SCOPE
0.4+-0.4msec.
Measuring Equipment
Specification for Adjustment
Tape for the adjustment Example: VFJ8125H3F use alignment tape VFJ8125H3F
Supply a Video Signal to the VIDEO INPUT on the rear panel or tune in a local on-air

Note:
If ☒ appears in any block, this means it is not used or not important.

Fig. E1

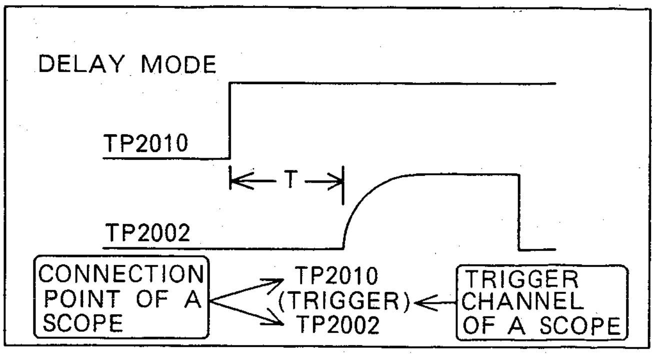

DELAY MODE
TP2010
T
TP2002
CONNECTION POINT OF A SCOPE
TP2010
(TRIGGER)
TP2002
TRIGGER CHANNEL OF A SCOPE

Fig. E2

NOTE : Before the electrical adjustment, set the VHS VTR as following conditions except for especial instructions in each adjustment item.

1. Picture Sharpness Control...Centre Fix Position.
2. RF Signal Level SW..........HIGH (NV-L25B)
3. TEST Signal SW..............OFF
4. EDIT/EDIT NOISE FILTER SW...OFF
5. Digital Tracking SW.........ON

SERVO Section

2-3-3. PG SHIFTER ADJUSTMENT

TP	**ADJ.**	**MODE**	**INPUT**
TP2001 TP3002	VR2001	PLAY BACK	☒
TAPE	**M. EQ.**	**SPEC.**	
ALIGNMENT TAPE VFJ8125H3F	OSCILLO-SCOPE	6.5+-0.5H(NV-L25EG) 7.0+-0.5H(NV-L25B)	

1. Connect the Oscilloscope to TP2001 and TP3002.
2. Playback the VHS Alignment Tape (VFJ8125H3F)
3. Adjust VR2001 so that the phase difference becomes 7.0+-0.5(H)...(for B), 6.5+-0.5(H)...(for EG) as shown in Fig. E3.

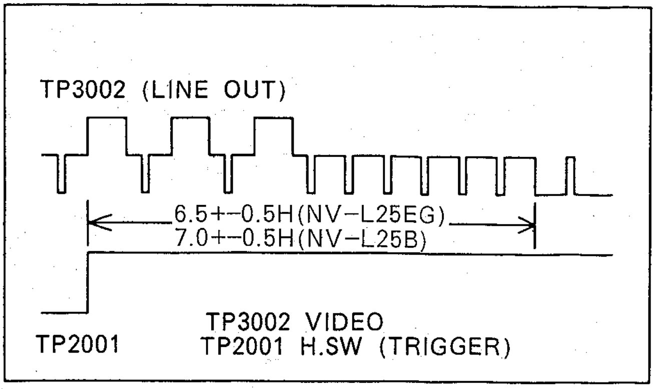

TP3002 (LINE OUT)
6.5+-0.5H(NV-L25EG)
7.0+-0.5H(NV-L25B)
TP2001
TP3002 VIDEO
TP2001 H.SW (TRIGGER)

Fig. E3

2-3-4. ARTIFICIAL V-SYNC ADJUSTMENT

TP	ADJ.	MODE	INPUT
MONITOR SCREEN	VR2010 (SP)	SP STILL	VIDEO SIGNAL
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	MONITOR	NO V-DANCING	

1. Record the Video Signal in SP Mode and playback the just recorded portion. Then place the unit in STILL Mode.
2. Adjust VR2010 so that the V-Dancing does not appear on the Monitor Screen.

2-3-5. SLOW TRACKING ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP2002 TP2020	VR2011 (SP)	SLOW	COLOUR BAR
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE	20+-2 (msec) (SP)	

1. Connect the Oscillo scope to TP2002 and TP2026
2. Record the Colour Bar in SP Mode and playback the just recorded portion. Then place the Unit in the SLOW MODE by press SLOW BUTTON. And set the SLOW TRACKING to fix.
3. Adjust VR2011 so that the phase difference becomes 20+-2 (msec) as shown in Fig. E4.

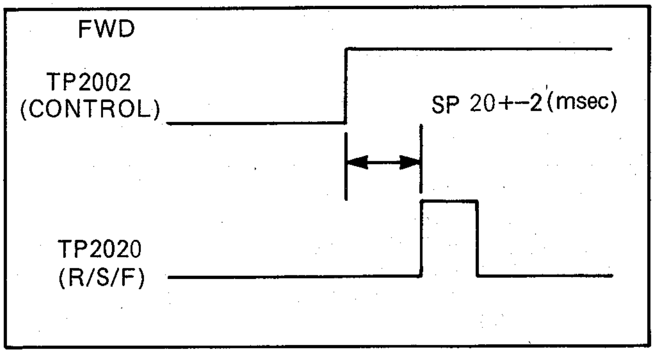


Fig.E4

LUMINANCE, CHROMINANCE & HEAD AMP Section

2-3-6. Y-NR BALANCE ADJUSTMENT (NV-L25EG)

TP	ADJ.	MODE	INPUT
C306-(+)	VR302	SELF RECORDING	COLOUR BAR
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE	WAVE-FORM IS MINIMIZED	

1 .Connect the oscilloscope to (+) side of C306 on Sub Main C.B.A..

2 .Adjust VR302 so that the waveform is minimized as shown below.

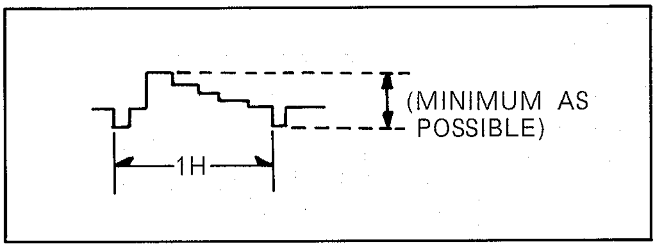


Fig.E5

2-3-7. Y-NR BALANCE ADJUSTMENT (NV-L25B)

TP	ADJ.	MODE	INPUT
IC302-21	VR302	RECORDING (LP MODE)	COLOUR BAR
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE	WAVE-FORM IS MINIMIZED	

1. Record the Colour Bar in LP Mode.
2. Connect the Oscilloscope to IC302-21.
3. Adjust VR302 so that waveform becomes minimum.

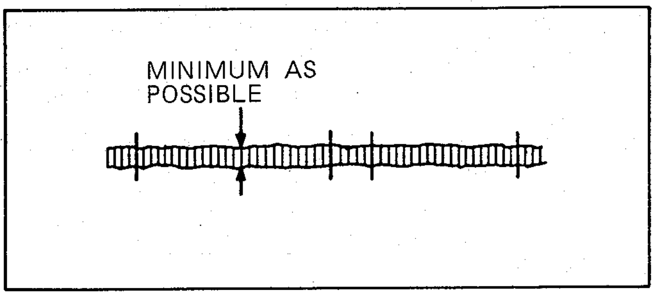


Fig.E6

2-3-8. Y-NR GAIN ADJUSTMENT (NV-L25B)

TP	ADJ.	MODE	INPUT
TP3002	VR301	SELF RECORDING AND PLAYBACK (LP MODE)	COLOUR BAR
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE	1.0+-0.05 (Vp-p) (75ohm Terminated)	

1. Record the Colour bar in LP Mode and Playback the just recorded portion.
2. Connect the oscilloscope to TP3002.
3. Adjust VR301 so that the Video Level becomes 1.0+-0.1 (Vp-p).

Achieve this adjustment, Video OUT terminal must be terminated with 75ohm.

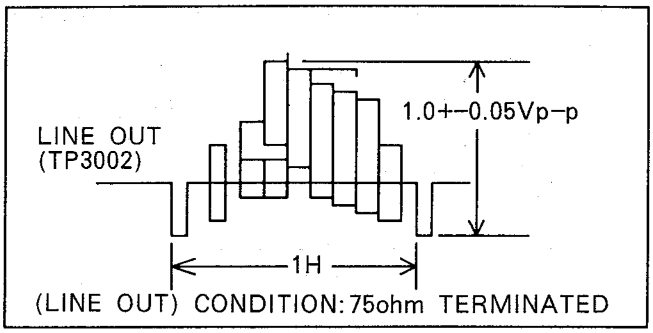

LINE OUT
(TP3002)
1.0+-0.05Vp-p
1H
(LINE OUT) CONDITION:75ohm TERMINATED

Fig.E7

2-3-9. RECORDING CURRENT ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP507(HOT) TP508(GND)	VR501 (Y) VR502 (C)	RECORDING (SP MODE)	COLOUR BAR
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE	32+-2 (mVp-p) (C) 130+-5 (mVp-p) (Y)	

1. Record the Colour Bar in SP Mode.
2. Connect the Oscilloscope to TP507 (HOT) and TP508 (GND).
3. Turn VR501 so that luminance recording current signal becomes closed. (means minimum waveform)
4. Adjust VR502 so that the Chrominance recording current becomes 32+-2 (mVp-p) as shown in Fig. E8.
5. Next, adjust VR501 so that Luminance Recording current becomes 130+-5 (mVp-p) as shown in Fig. E9.

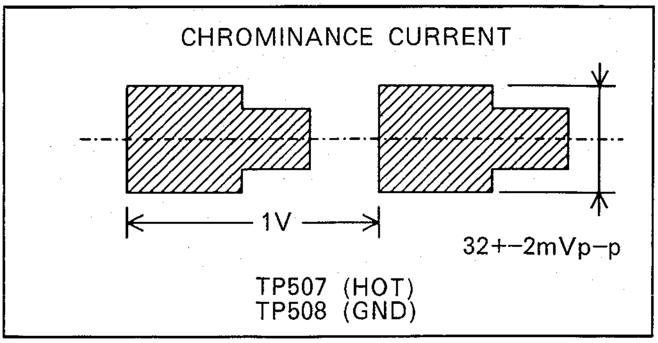

CHROMINANCE CURRENT
1V
32+-2mVp-p
TP507 (HOT)
TP508 (GND)

Fig.E8

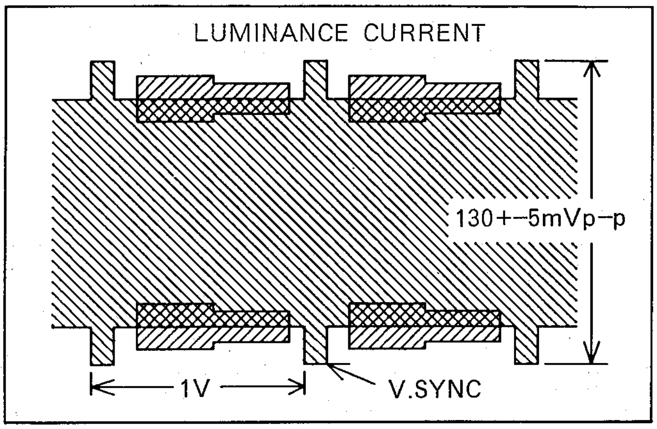

LUMINANCE CURRENT
130+-5mVp-p
1V
V.SYNC

Fig.E9

2-3-10. CHROMA RECURSIVE ADJUSTMENT (NV-L25B)

TP	ADJ.	MODE	INPUT
IC302-8	VR801 VR802	SELF RECORDING AND PLAYPACK (SP MODE)	COLOUR BAR
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE	AMPLITUDE IS MINIMIZED	

1. Record the Colour Bar in SP Mode and playback the just recorded portion.
2. Connect the Oscilloscope to IC302-8.
3. Adjust VR801 and VR802 alternately so that the Chrominance Waveform Amplitude becomes minimum.

Befor this adjustment "Y-NR BALANCE ADJUSTMENT and "RECORDING CURRENT ADJUSTMENT"

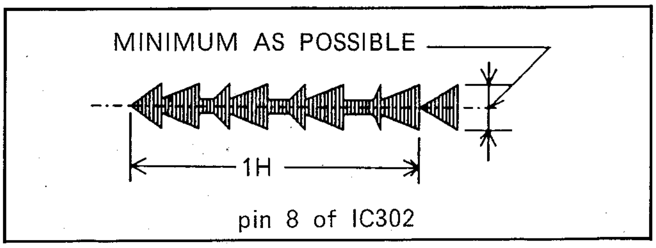

MINIMUM AS POSSIBLE
1H
pin 8 of IC302

Fig.E10

2-3-11. CHROMINANCE PLAYBACK LEVEL ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP3002	VR803	SELF RECORDING AND PLAYBACK	COLOUR BAR
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE	0.55+-0.05 (Vp-p) (75ohm terminated)	

1. Record the Colour Bar in SP Mode and playback the just recorded portion.
2. Connect the Oscilloscope to TP3002.
3. Adjust VR803 so that the CYAN Level becomes 0.55+-0.05 (Vp-p) as shown in Fig. E11.

Achieve this adjustment, the unit must be terminated with 75ohm.

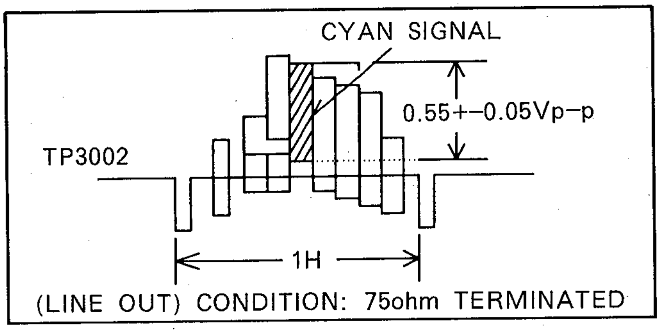

CYAN SIGNAL
0.55+-0.05Vp-p
TP3002
1H
(LINE OUT) CONDITION: 75ohm TERMINATED

Fig.E11

2-3-12. SECAM KILLER ADJUSTMENT (NV-L25EG)

TP	ADJ.	MODE	INPUT
IC851-11	T851	RECORDING	SECAM COLOUR BAR
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE	PORTION "A" IS PEAK TO NEGATIVE DIRECTION	

1. Record the SECAM Colour Bar.
2. Connect the Oscilloscope to IC851-11.
3. Adjust T851 so that portion "A" is peak to negative direction as shown in Fig. E12.

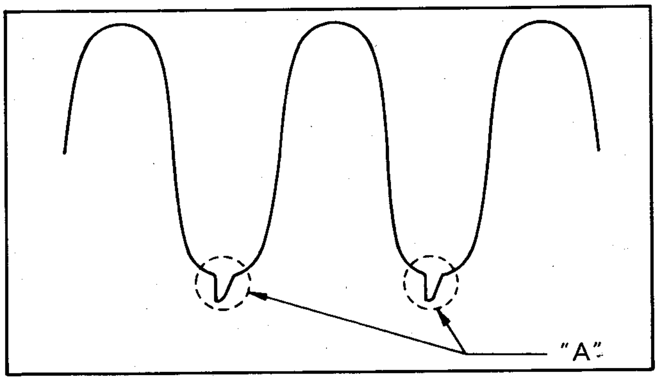


Fig.E12

2-3-13. VIDEO FREQUENCY RESPONSE ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP3002	VR3012 (SP) VR3013 (LP)	SELF RECORDING AND PLAYBACK	VIDEO SWEEP SIGNAL
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE/ VIDEO SWEEP GENERATOR	B/A=0+-1 (dB) (90~110(%))	

1. Set the Video Sweep Generator output as shown in Fig. E13.

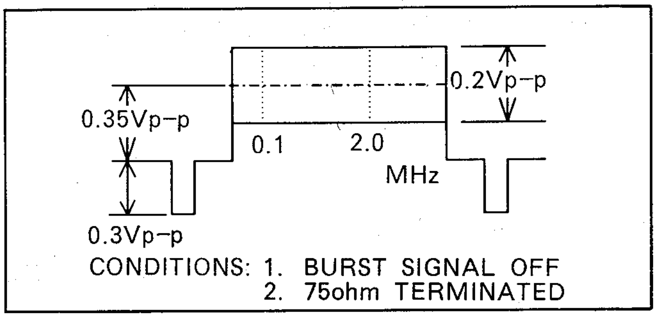

0.2Vp-p
0.35Vp-p
0.1
2.0
MHz
0.3Vp-p
CONDITIONS: 1. BURST SIGNAL OFF
2. 75ohm TERMINATED

Fig.E13

2. Record the Video Sweep Signal in SP Mode and playback just recorded portion.
3. Set the Picture Sharpness Control to Fix position.
4. Set the EDIT SW to OFF position.
5. Adjust VR3012 so that the Frequency Response becomes B/A=0+-1dB as shown in Fig.
6. Record the Video Sweep Signal in LP Mode and playback just recorded portion.
7. Set the Picture Sharpness Control to Fix position.
8. Adjust VR3013 so that the Frequency Response becomes B/A=0+-1dB as shown in Fig. E14.

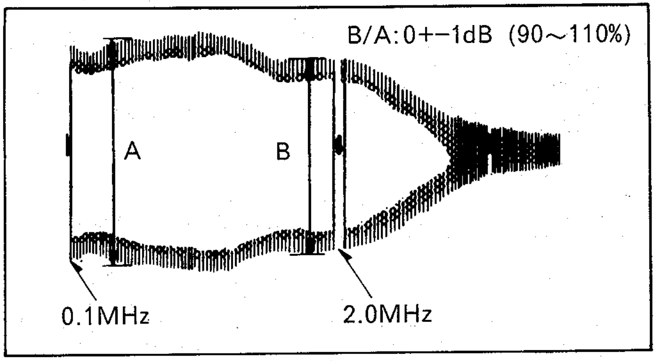

B/A:0+-1dB (90~110%)
A
B
0.1MHz
2.0MHz

Fig.E14

AUDIO Section

2-3-14. AUDIO BIAS CURRENT ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP4002 (+) TP4003 (−)	VR4002	RECORDING	
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	V.T.V.M.	2.7+−0.1 (mVrms)	

1. Connect the V.T.V.M. to TP4002 (+) and TP4003 (−). (Do not use long cable for Connection)
2. Make a short circuit at terminal of the Audio input.
3. Place the Unit in Recording Mode.
4. Adjust VR4002 so that reading of V.T.V.M. becomes 2.7+−0.1 (mVrms).

TIMER Section

2-3-15. TIMER REFERENCE CLOCK ADJUSTMENT

(NV−L25EG)

TP	ADJ.	MODE	INPUT
TP7501	C7501	STOP	
TAPE	**M. EQ.**	**SPEC.**	
	FREQUENCY COUNTER DC POWER SUPPLY	7812.5+−0.015(us)	

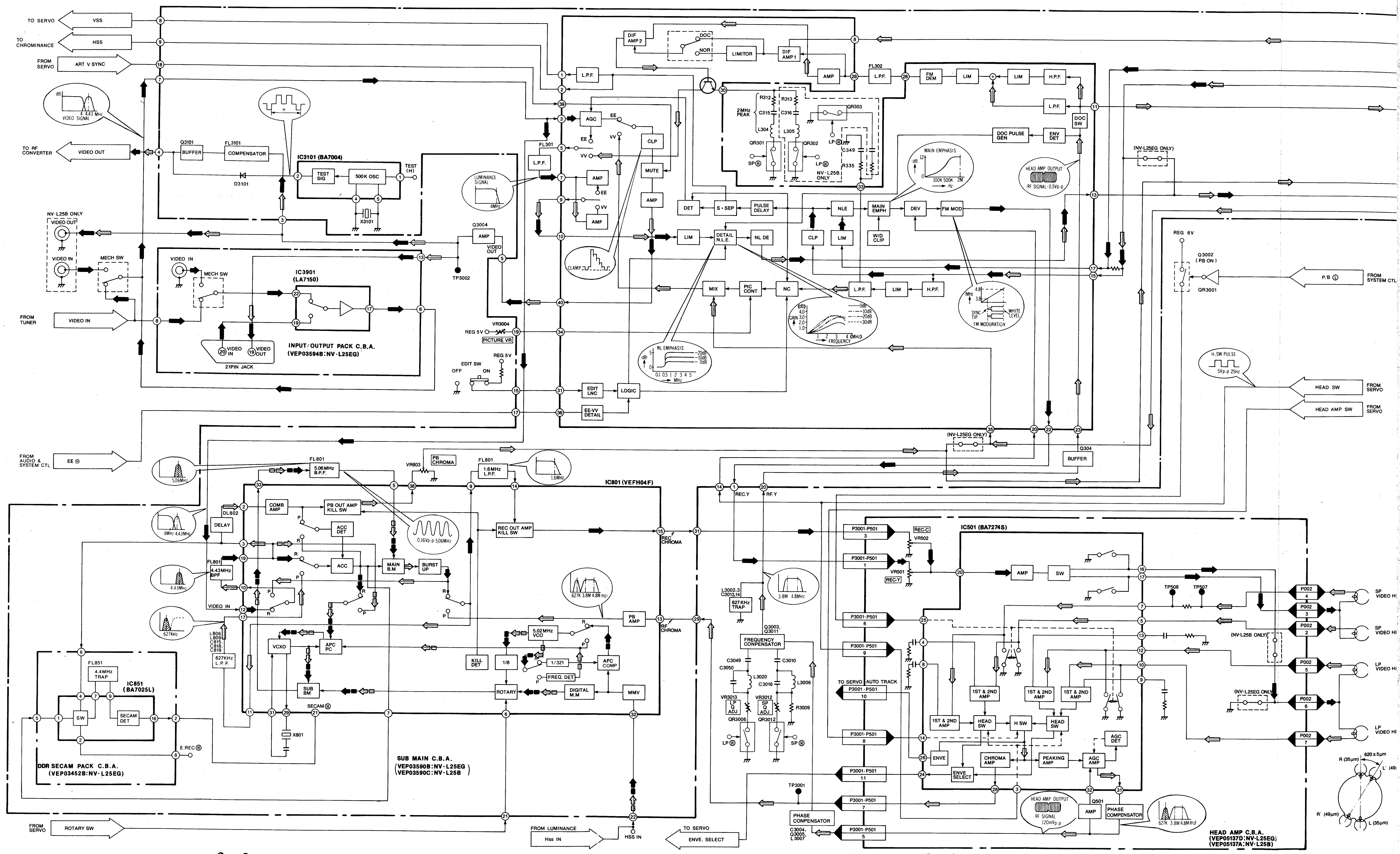
1. Set the voltage of DC power supply for DC5.0+−0.1(V) and supply it to P7501−11,10(+) and GND (−).
2. Connect the jumper wire between P7508−8 and GND.
3. Connect the Frequency Counter to TP7501.
4. Adjust C7501 so that TP7501 becomes 7812.5+−0.015(us).

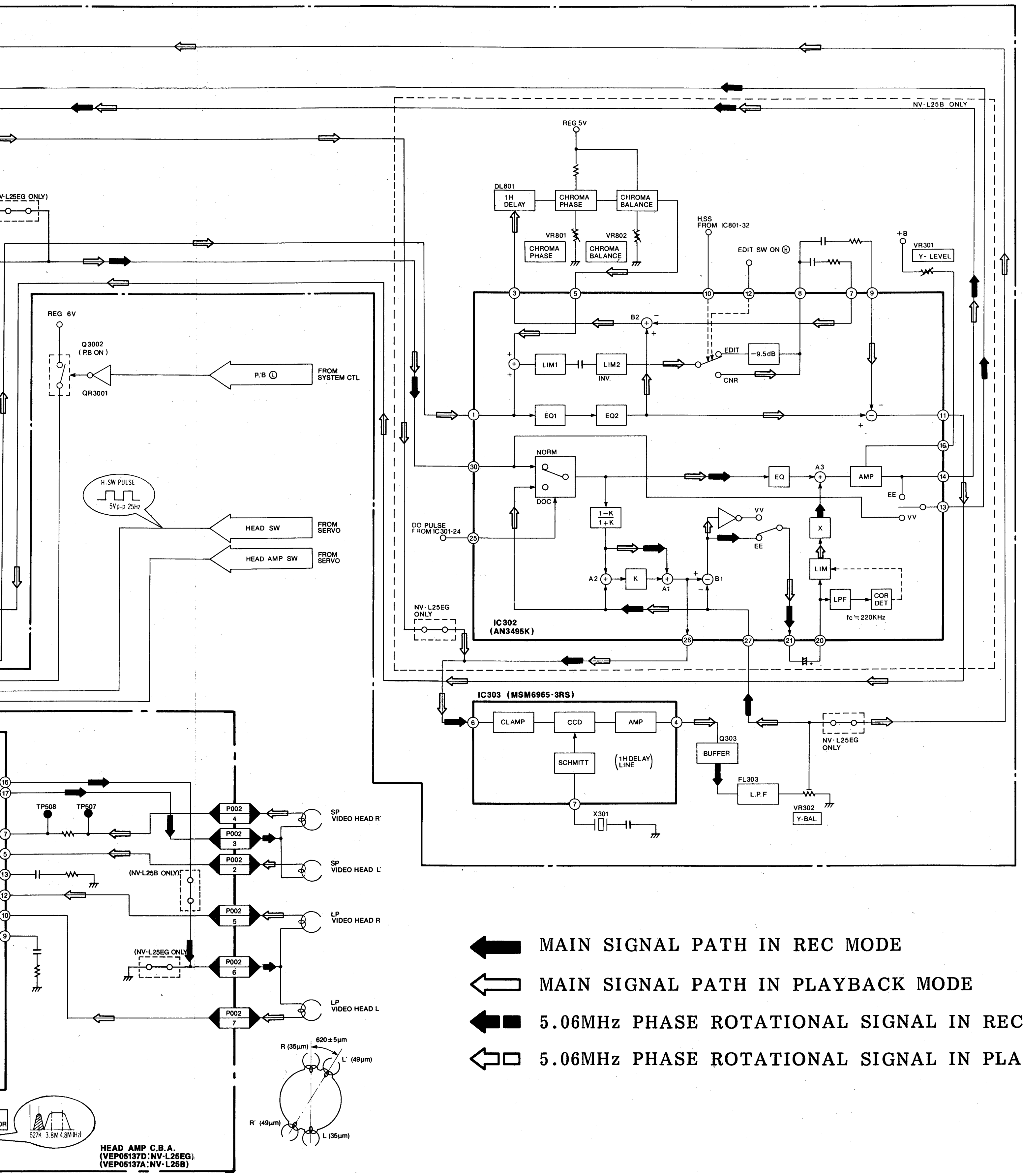
(NV−L25B)

TP	ADJ.	MODE	INPUT
TP7501	C7501	STOP	
TAPE	**M. EQ.**	**SPEC.**	
	FREQUENCY COUNTER DC POWER SUPPLY	488.2812+−0.001(us)	

1. Set the voltage of DC power supply for DC5.0+−0.1(V) and supply it to P7501−11,10(+) and GND (−).
2. Connect the jumper wire between P7501−8 and GND.
3. Connect the diode(MA165) between IC7501−36(kathode) and IC7501−56(anode).
4. Connect the Frequency Counter to TP7501.
5. Adjust C7501 so that TP7501 becomes 488.2812+−0.001(us).

SECTION 3
BLOCK DIAGRAMS & SCHEMATIC DIAGRAMS
3-1. LUMINANCE & CHROMINANCE BLOCK DIAGRAM


TO SERVO
VSS
TO CHROMINANCE
HSS
FROM SERVO
ART V SYNC
TO RF CONVERTER
VIDEO OUT
NV-L25B ONLY
VIDEO OUT
VIDEO IN
MECH SW
FROM TUNER
VIDEO IN
Q3101
BUFFER
FL3101
COMPENSATOR
D3101
IC3101 (BA7004)
TEST SIG
500K OSC
TEST (H)
X3101
Q3004
AMP
VIDEO OUT
TP3002
IC3901 (LA7150)
INPUT/OUTPUT PACK C.B.A. (VEP03594B:NV-L25EG)
21PIN JACK
VIDEO IN
VIDEO OUT
REG 5V
VR3004
PICTURE VR
EDIT SW
OFF
ON
FROM AUDIO & SYSTEM CTL
EE
LUMINANCE SIGNAL
4MHz
VIDEO SIGNAL
4 4.43 MHz
FL301
L.P.F.
AGC
EE
VV
CLP
MUTE
AMP
DIF AMP 2
DOC
NOR
LIMITOR
DIF AMP 1
AMP
FL302
L.P.F.
FM DEM
LIM
H.P.F.
DOC SW
DOC PULSE GEN
ENV DET
HEAD AMP OUTPUT
RF SIGNAL: 0.5Vp-p
(NV-L25EG ONLY)
2MHz PEAK
R312
R313
C315
C316
L304
L305
QR301
QR302
QR303
SP Ⓗ
LP Ⓗ
C349
R335
NV-L25B ONLY
MAIN EMPHASIS
100K 500K 2M
DET
S·SEP
PULSE DELAY
NLE
MAIN EMPH
DEV
FM MOD
LIM
DETAIL N.L.E.
NL DE
CLP
W/D CLIP
MIX
PIC CONT
NC
H.P.F.
CLAMP
NL EMPHASIS
FREQUENCY
SYNC TIP
WHITE LEVEL
FM MODURATION
EDIT LNC
LOGIC
EE-VV DETAIL
REG 6V
Q3002 (PB ON)
QR3001
FROM SYSTEM CTL
P.B Ⓛ
H.SW PULSE
5Vp-p 25Hz
HEAD SW
FROM SERVO
HEAD AMP SW
FROM SERVO
(NV-L25EG ONLY)
Q304
BUFFER
FL801
5.06MHz B.P.F.
VR803
PB CHROMA
1.6MHz L.P.F.
IC801 (VEFH04F)
DL802
DELAY
COMB AMP
PB OUT AMP KILL SW
ACC DET
ACC
MAIN B.M
BURST UP
REC OUT AMP KILL SW
0.16Vp-p 5.06MHz
4.43MHz BPF
VIDEO IN
L806 L809 C815 C818 C819
627KHz L.P.F.
VCXO
APC PC
5.02MHz VCO
AFC COMP
1/321
FREQ. DET
KILL DET
1/8
SUB BM
ROTARY
DIGITAL M.M
MMV
PB AMP
627K 3.8M 4.8M
X801
SECAM Ⓗ
REC CHROMA
RF CHROMA
FL851
4.4MHz TRAP
IC851 (BA7025L)
SW
SECAM DET
E.REC Ⓗ
DDR SECAM PACK C.B.A. (VEP03452B:NV-L25EG)
SUB MAIN C.B.A. (VEP03590B:NV-L25EG) (VEP03590C:NV-L25B)
FROM SERVO
ROTARY SW
FROM LUMINANCE
Hss IN
HSS IN
TO SERVO
ENVE. SELECT
REC.Y
RF.Y
L3002,3 C3013,14
627KHz TRAP
3.8M 4.8MHz
Q3003, Q3011
FREQUENCY CONPENSATOR
C3049
C3050
C3010
L3020
C3016
L3006
VR3013 LP Q ADJ
VR3012 SP Q ADJ
R3009
QR3006
QR3012
LP Ⓗ
SP Ⓗ
TP3001
PHASE CONPENSATOR
C3004, C3005, L3007
P3001-P501
REC-C
VR502
VR501
REC-Y
TO SERVO AUTO TRACK
IC501 (BA7274S)
AMP
SW
TP508
TP507
1ST & 2ND AMP
HEAD SW
H SW
CHROMA AMP
PEAKING AMP
AGC AMP
AGC DET
ENVE
ENVE SELECT
Q501
AMP
PHASE COMPENSATOR
HEAD AMP OUTPUT
RF SIGNAL 120mVp-p
627K 3.8M 4.8MHz
P002
(NV-L25B ONLY)
(NV-L25EG ONLY)
SP VIDEO HI
LP VIDEO HI
620±5μm
R (35μm)
L' (49)
R' (49μm)
L (35μm)
HEAD AMP C.B.A. (VEP05137D:NV-L25EG) (VEP05137A:NV-L25B)


NV-L25B ONLY
REG 5V
DL801
1H DELAY
CHROMA PHASE
CHROMA BALANCE
VR801
VR802
H.SS FROM IC801-32
EDIT SW ON Ⓗ
+B
VR301
Y- LEVEL
B2
LIM1
LIM2
INV.
EDIT
-9.5dB
CNR
EQ1
EQ2
NORM
DOC
EQ
A3
AMP
EE
VV
1-K
1+K
K
A2
A1
B1
X
LIM
LPF
COR DET
fc≒220KHz
IC302
(AN3495K)
DO PULSE FROM IC301-24
NV-L25EG ONLY
REG 6V
Q3002
(PB ON)
QR3001
P.B Ⓛ
FROM SYSTEM CTL
H.SW PULSE
5Vp-p 25Hz
HEAD SW
FROM SERVO
HEAD AMP SW
FROM SERVO
IC303 (MSM6965-3RS)
CLAMP
CCD
AMP
SCHMITT
(1H DELAY LINE)
X301
Q303
BUFFER
FL303
L.P.F
VR302
Y-BAL
TP508
TP507
(NV-L25B ONLY)
(NV-L25EG ONLY)
P002
SP VIDEO HEAD R'
SP VIDEO HEAD L'
LP VIDEO HEAD R
LP VIDEO HEAD L
R (35µm)
620±5µm
L' (49µm)
R' (49µm)
L (35µm)
627K 3.8M 4.8M(Hz)
HEAD AMP C.B.A.
(VEP05137D:NV-L25EG)
(VEP05137A:NV-L25B)

⬅ MAIN SIGNAL PATH IN REC MODE

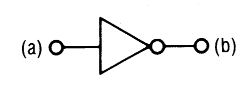
⇦ MAIN SIGNAL PATH IN PLAYBACK MODE

⬅■ 5.06MHz PHASE ROTATIONAL SIGNAL IN REC MODE

⇦□ 5.06MHz PHASE ROTATIONAL SIGNAL IN PLAYBACK MODE

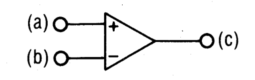
SYMBOL	TRUTH VALUE TABLE

INVERTER



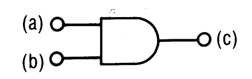
IN	(a)	H	L
OUT	(b)	L	H

COMPARTOR



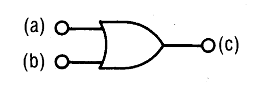
IN	(a) (b)	(a)>(b)	(a)<(b)
OUT	(c)	H	L

AND CIRCUIT



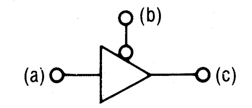
IN	(a)	L	L	H	H
	(b)	L	H	L	H
OUT	(c)	L	L	L	H

OR CIRCUIT



IN	(a)	L	L	H	H
	(b)	L	H	L	H
OUT	(c)	L	H	H	H

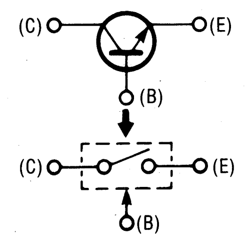
THREE STATES BUFFER



IN	(a)	H	L	H or L
	(b)	L	L	H
OUT	(c)	H	L	※

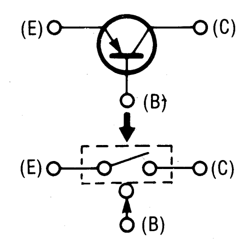
※ High Impedance

TR. SW (NPN TYPE)



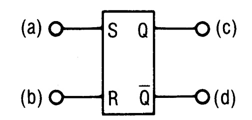
BASE	H	L
TR. SW	ON	OFF

TR. SW (PNP TYPE)



BASE	H	L
TR. SW	OFF	ON

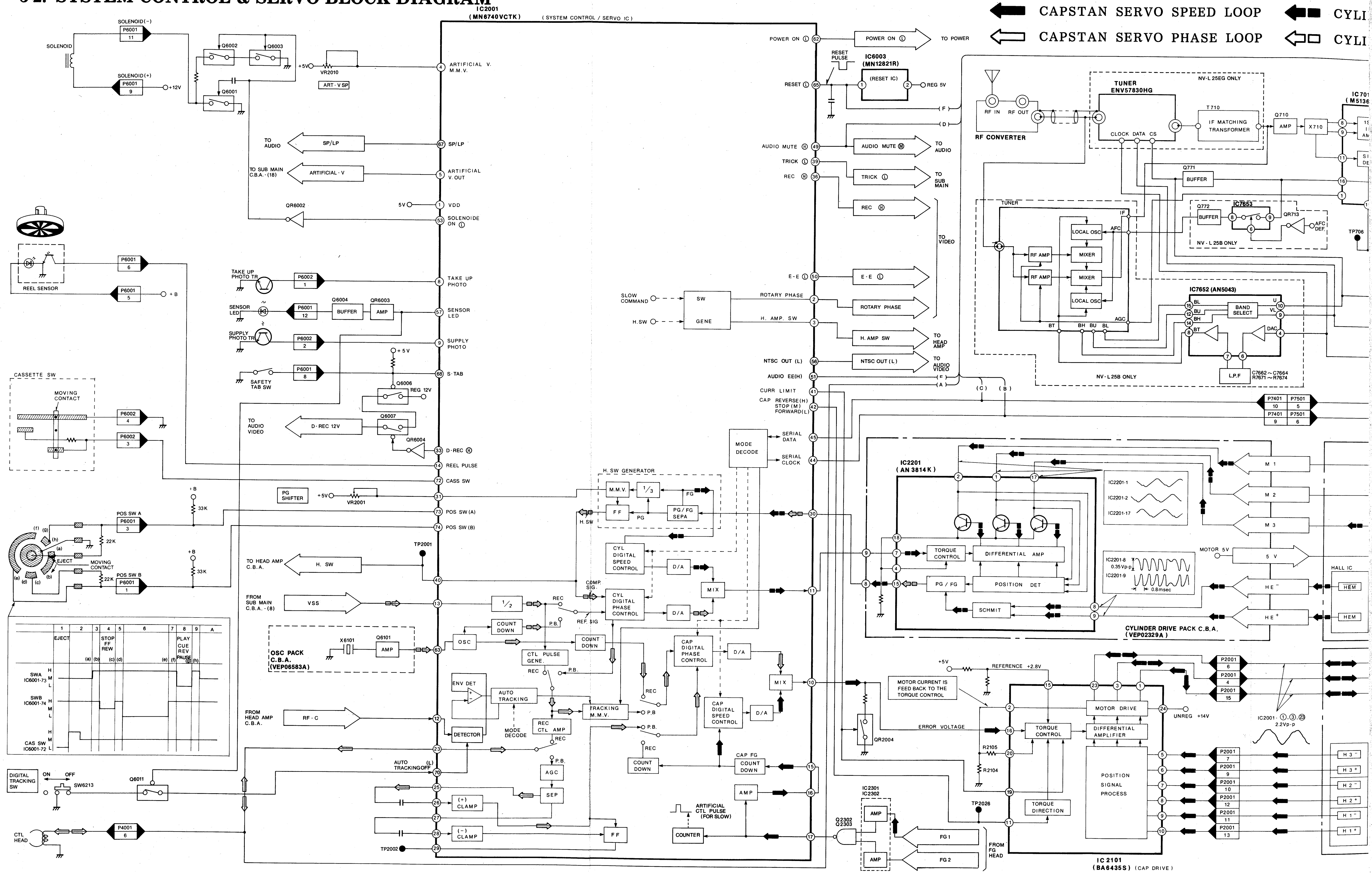
R-S TYPE FLIP-FLOP



IN	(a)	L	L	⎍
	(b)	L	⎍	L
OUT	(c)	※	L	H
	(d)	◆	H	L

※ Initial condition is maintained.
◆ Initial condition is reverced.

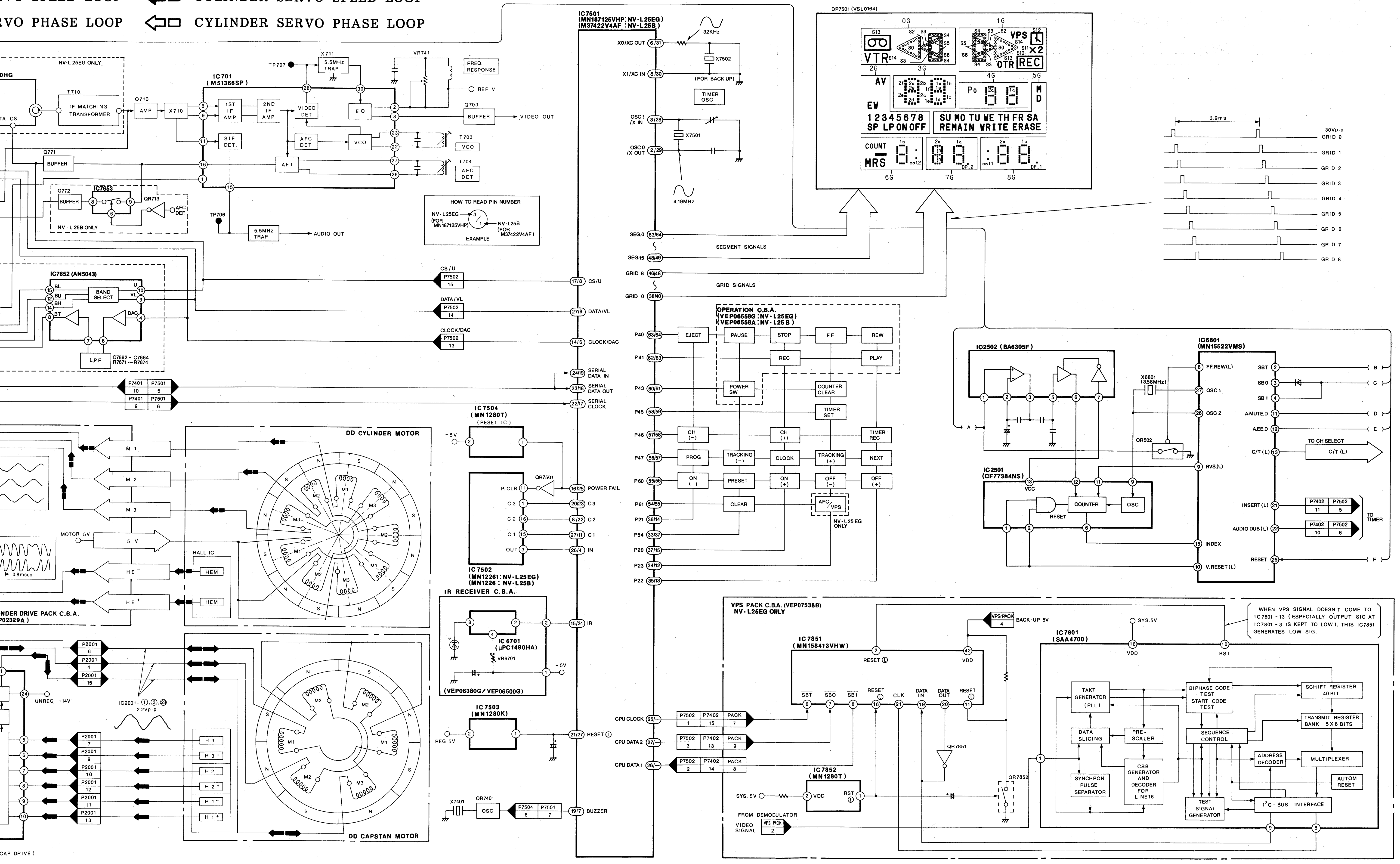
3-2. SYSTEM CONTROL & SERVO BLOCK DIAGRAM


CAPSTAN SERVO SPEED LOOP
CAPSTAN SERVO PHASE LOOP
CYLI
CYLI
IC2001
(MN6740VCTK)
(SYSTEM CONTROL / SERVO IC)
SOLENOID(−)
SOLENOID(+)
SOLENOID
P6001
Q6002
Q6003
Q6001
+12V
+5V
VR2010
ART · V SP
ARTIFICIAL V. M.M.V.
TO AUDIO
SP/LP
TO SUB MAIN C.B.A. · (18)
ARTIFICIAL · V
ARTIFICIAL V. OUT
QR6002
5V
VDD
SOLENOIDE ON Ⓛ
REEL SENSOR
+B
TAKE UP PHOTO TR
P6002
TAKE UP PHOTO
SENSOR LED
Q6004
BUFFER
QR6003
AMP
SUPPLY PHOTO TR
SUPPLY PHOTO
SAFETY TAB SW
S · TAB
Q6006
REG 12V
Q6007
QR6004
TO AUDIO VIDEO
D · REC 12V
D · REC Ⓗ
CASSETTE SW
MOVING CONTACT
REEL PULSE
CASS SW
PG SHIFTER
VR2001
POS SW A
POS SW B
33K
22K
POS SW (A)
POS SW (B)
EJECT
TP2001
TO HEAD AMP C.B.A.
H. SW
FROM SUB MAIN C.B.A. · (8)
VSS
OSC PACK C.B.A. (VEP06583A)
X6101
Q6101
FROM HEAD AMP C.B.A.
RF · C
AUTO TRACKING (L) OFF
DIGITAL TRACKING SW
ON
OFF
SW6213
Q6011
CTL HEAD
P4001
TP2002
EJECT
STOP FF REW
PLAY CUE REV PAUSE
SWA IC6001-73
SWB IC6001-74
CAS SW IC6001-72
H
M
L
H. SW GENERATOR
M.M.V.
1/3
FG
FF
PG
PG / FG SEPA
CYL DIGITAL SPEED CONTROL
D/A
MIX
CYL DIGITAL PHASE CONTROL
COMP. SIG.
REC
P.B.
REF. SIG
1/2
COUNT DOWN
OSC
CTL PULSE GENE.
ENV DET
AUTO TRACKING
DETECTOR
MODE DECODE
REC CTL AMP
TRACKING M.M.V.
AGC
SEP
(+) CLAMP
(−) CLAMP
FF
CAP DIGITAL PHASE CONTROL
CAP DIGITAL SPEED CONTROL
CAP FG
COUNTER
ARTIFICIAL CTL PULSE (FOR SLOW)
SLOW COMMAND
SW
GENE
MODE DECODE
POWER ON Ⓛ
RESET PULSE
IC6003 (MN12821R)
(RESET IC)
REG 5V
RESET Ⓛ
TO POWER
AUDIO MUTE Ⓗ
AUDIO MUTE Ⓜ
TRICK Ⓛ
REC Ⓗ
TO SUB MAIN
TO VIDEO
E · E Ⓛ
ROTARY PHASE
H. AMP. SW
H. AMP SW
TO HEAD AMP
NTSC OUT (L)
TO AUDIO VIDEO
AUDIO EE(H)
CURR LIMIT
CAP REVERSE(H) STOP(M) FORWARD(L)
SERIAL DATA
SERIAL CLOCK
RF IN
RF OUT
RF CONVERTER
TUNER ENV57830HG
NV-L25EG ONLY
CLOCK DATA CS
T710
IF MATCHING TRANSFORMER
Q710
X710
IC701 (M5136
Q771
BUFFER
TUNER
Q772
IC7653
QR713
AFC DEF.
NV-L25B ONLY
TP706
RF AMP
MIXER
LOCAL OSC
IF
AFC
AGC
BT
BH BU BL
IC7652 (AN5043)
BAND SELECT
DAC
L.P.F
C7662～C7664 R7671～R7674
P7401
P7501
IC2201 (AN3814K)
IC2201-1
IC2201-2
IC2201-17
TORQUE CONTROL
DIFFERENTIAL AMP
PG / FG
POSITION DET
SCHMIT
IC2201-8 0.35Vp-p
IC2201-9
0.8msec
MOTOR 5V
M1
M2
M3
5V
HALL IC
HE−
HE+
HEM
CYLINDER DRIVE PACK C.B.A. (VEP02329A)
+5V
REFERENCE +2.8V
MOTOR CURRENT IS FEED BACK TO THE TORQUE CONTROL
ERROR VOLTAGE
QR2004
R2105
R2104
TP2026
MOTOR DRIVE
UNREG +14V
TORQUE CONTROL
DIFFERENTIAL AMPLIFIER
POSITION SIGNAL PROCESS
TORQUE DIRECTION
IC2001 · ①, ③, ㉓ 2.2Vp-p
P2001
H3−
H3+
H2−
H2+
H1−
H1+
IC2301 IC2302
Q2302 Q2303
FG1
FG2
FROM FG HEAD
IC2101 (BA6435S) (CAP DRIVE)

Back Page:
LUMINANCE & CHROMINANCE Section

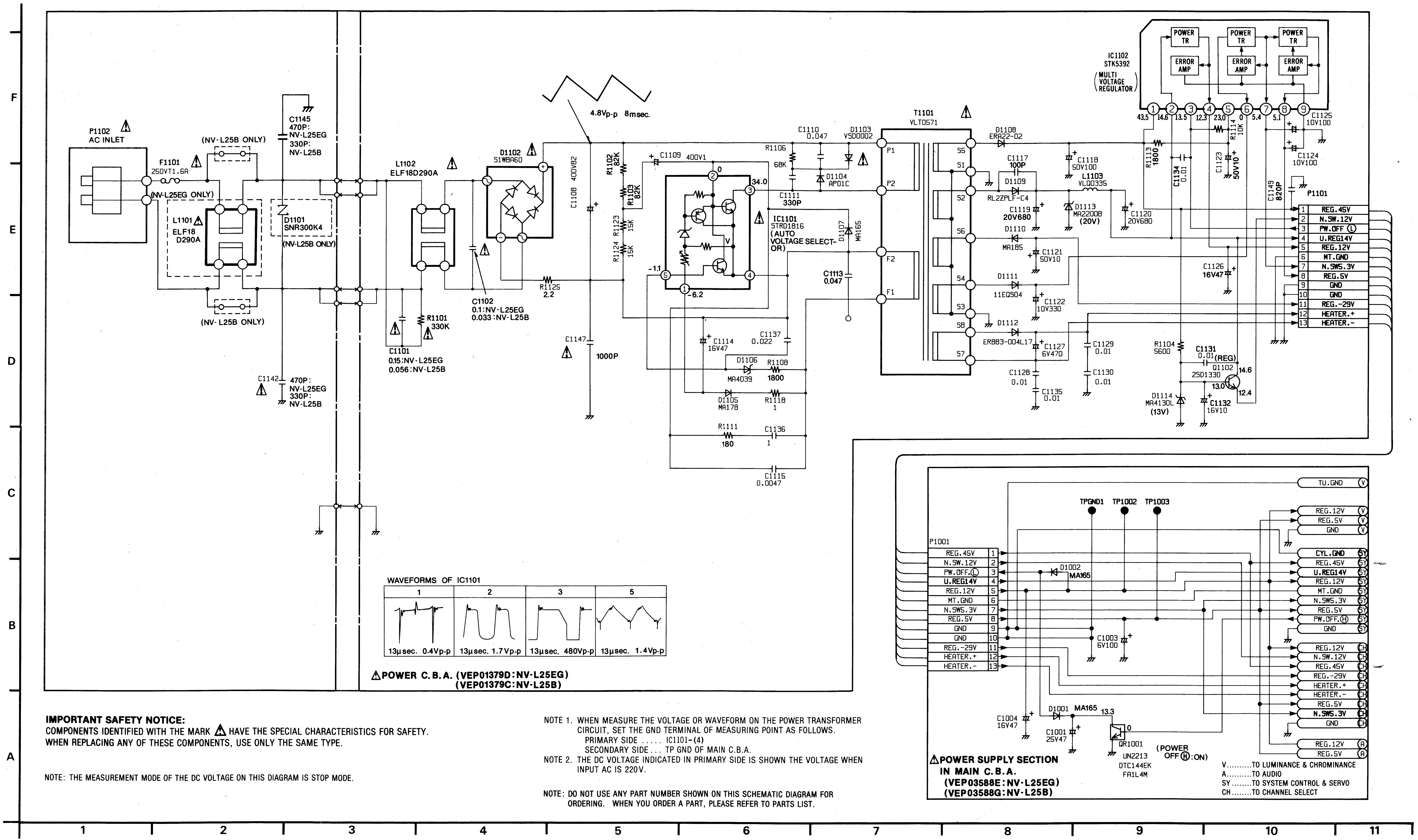
VO SPEED LOOP ◀■ CYLINDER SERVO SPEED LOOP

VO PHASE LOOP ◁□ CYLINDER SERVO PHASE LOOP



IC7501
(MN187125VHP:NV-L25EG)
(M37422V4AF:NV-L25B)
X0/XC OUT
X1/XC IN
32KHz
X7502
(FOR BACK UP)
TIMER OSC
OSC1 /X IN
OSC0 /X OUT
X7501
4.19MHz
SEG.0
SEG.15
GRID 8
GRID 0
SEGMENT SIGNALS
GRID SIGNALS
CS/U
DATA/VL
CLOCK/DAC
SERIAL DATA IN
SERIAL DATA OUT
SERIAL CLOCK
POWER FAIL
IR
RESET
BUZZER
CPU CLOCK
CPU DATA 2
CPU DATA 1
NV-L25EG ONLY
IF MATCHING TRANSFORMER
T710
IC701
(M51366SP)
1ST IF AMP
2ND IF AMP
VIDEO DET
EQ
SIF DET.
APC DET
VCO
AFT
X711
5.5MHz TRAP
TP707
VR741
FREQ RESPONSE
REF V.
Q703
BUFFER
VIDEO OUT
T703 VCO
T704 AFC DET
Q710 AMP
X710
Q771 BUFFER
Q772 BUFFER
IC7653
QR713
AFC DEF.
NV-L25B ONLY
TP706
5.5MHz TRAP
AUDIO OUT
HOW TO READ PIN NUMBER
NV-L25EG (FOR MN187125VHP)
NV-L25B (FOR M37422V4AF)
EXAMPLE
IC7652 (AN5043)
BAND SELECT
L.P.F
C7662~C7664
R7671~R7674
DD CYLINDER MOTOR
MOTOR 5V
HALL IC
HEM
DD CAPSTAN MOTOR
NDER DRIVE PACK C.B.A.
P02329A)
UNREG +14V
IC2001-①.③.㉓
2.2Vp-p
0.8msec
CAP DRIVE)
IC7504
(MN1280T)
(RESET IC)
QR7501
IC7502
(MN12261:NV-L25EG)
(MN1226:NV-L25B)
IR RECEIVER C.B.A.
IC6701
(μPC1490HA)
VR6701
(VEP06380G/VEP06500G)
IC7503
(MN1280K)
REG 5V
X7401
QR7401
OSC
DP7501 (VSL0164)
VTR
VPS
OTR
REC
AV
EW
12345678
SP LP ON OFF
SU MO TU WE TH FR SA
REMAIN WRITE ERASE
COUNT
MRS
OPERATION C.B.A.
(VEP06558G:NV-L25EG)
(VEP06558A:NV-L25B)
EJECT
PAUSE
STOP
FF
REW
REC
PLAY
POWER SW
COUNTER CLEAR
TIMER SET
CH (-)
CH (+)
TIMER REC
PROG.
TRACKING (-)
CLOCK
TRACKING (+)
NEXT
ON (-)
PRESET
ON (+)
OFF (-)
OFF (+)
CLEAR
AFC/VPS
NV-L25EG ONLY
3.9ms
30Vp-p
GRID 0
GRID 1
GRID 2
GRID 3
GRID 4
GRID 5
GRID 6
GRID 7
GRID 8
IC2502 (BA6305F)
IC6801
(MN15522VMS)
X6801 (3.58MHz)
FF.REW(L)
OSC1
OSC2
QR502
RVS.(L)
INDEX
V.RESET(L)
SBT
SB0
SB1
A.MUTE.D
A.EE.D
C/T (L)
TO CH SELECT
INSERT (L)
AUDIO DUB (L)
RESET
TO TIMER
IC2501
(CF77384NS)
VCC
COUNTER
OSC
RESET
VPS PACK C.B.A. (VEP07538B)
NV-L25EG ONLY
BACK-UP 5V
SYS.5V
WHEN VPS SIGNAL DOESN'T COME TO IC7801-13 (ESPECIALLY OUTPUT SIG AT IC7801-3 IS KEPT TO LOW), THIS IC7851 GENERATES LOW SIG.
IC7851
(MN158413VHW)
VDD
DATA IN
DATA OUT
QR7851
QR7852
IC7852
(MN1280T)
FROM DEMODULATOR
VIDEO SIGNAL
IC7801
(SAA4700)
RST
TAKT GENERATOR (PLL)
DATA SLICING
PRE-SCALER
SYNCHRON PULSE SEPARATOR
CBB GENERATOR AND DECODER FOR LINE16
BIPHASE CODE TEST
START CODE TEST
SEQUENCE CONTROL
TEST SIGNAL GENERATOR
SCHIFT REGISTER 40 BIT
TRANSMIT REGISTER BANK 5X8 BITS
ADDRESS DECODER
MULTIPLEXER
AUTOM RESET
I²C-BUS INTERFACE

3-3. POWER SCHEMATIC DIAGRAM


P1102 AC INLET
F1101 250VT1.6A
(NV-L25B ONLY)
(NV-L25EG ONLY)
L1101 ELF18 D290A
C1145 470P: NV-L25EG 330P: NV-L25B
D1101 SNR300K4
(NV-L25B ONLY)
C1142 470P: NV-L25EG 330P: NV-L25B
L1102 ELF18D290A
C1101 0.15:NV-L25EG 0.056:NV-L25B
R1101 330K
C1102 0.1:NV-L25EG 0.033:NV-L25B
D1102 S1WBA60
4.8Vp-p 8msec.
C1108 400V82
C1147 1000P
R1125 2.2
R1102 82K
R1103 82K
R1123 15K
R1124 15K
C1109 400V1
IC1101 STRD1816 (AUTO VOLTAGE SELECTOR)
-1.1
-6.2
34.0
C1114 16V47
C1137 0.022
D1106 MA4039
R1108 1800
D1105 MA178
R1118 1
R1111 180
C1136 1
C1115 0.0047
R1106 68K
C1110 0.047
D1103 VSD0002
D1104 APO1C
C1111 330P
D1107 MA165
C1113 0.047
T1101 VLT0571
P1 P2 F2 F1
S5 S1 S2 S6 S4 S3 S8 S7
D1108 ERA22-02
C1117 100P
D1109 RL2ZPLF-C4
C1119 20V680
D1110 MA185
C1121 50V10
D1111 11EQS04
C1122 10V330
D1112 ER883-004L17
C1127 6V470
C1128 0.01
C1135 0.01
C1129 0.01
C1130 0.01
C1118 50V100
L1103 VL00335
D1113 MA22008 (20V)
C1120 20V680
IC1102 STK5392 (MULTI VOLTAGE REGULATOR)
POWER TR
ERROR AMP
43.5 14.6 13.5 12.3 23.0 0 5.4 5.1
R1113 1800
C1134 0.01
C1123 50V10
R1114 10K
C1149 820P
C1125 10V100
C1124 10V100
C1126 16V47
R1104 5600
C1131 0.01 (REG)
Q1102 2SD1330
14.6 13.0 12.4
D1114 MA4130L (13V)
C1132 16V10
P1101
1 REG.45V
2 N.SW.12V
3 PW.OFF Ⓛ
4 U.REG14V
5 REG.12V
6 MT.GND
7 N.SW5.3V
8 REG.5V
9 GND
10 GND
11 REG.-29V
12 HEATER.+
13 HEATER.-
WAVEFORMS OF IC1101
1 2 3 5
13µsec. 0.4Vp-p
13µsec. 1.7Vp-p
13µsec. 480Vp-p
13µsec. 1.4Vp-p
POWER C.B.A. (VEP01379D:NV-L25EG) (VEP01379C:NV-L25B)
P1001
1 REG.45V
2 N.SW.12V
3 PW.OFF.Ⓛ
4 U.REG14V
5 REG.12V
6 MT.GND
7 N.SW5.3V
8 REG.5V
9 GND
10 GND
11 REG.-29V
12 HEATER.+
13 HEATER.-
TPGND1 TP1002 TP1003
D1002 MA165
C1003 6V100
C1004 16V47
D1001 MA165
13.3
C1001 25V47
QR1001 UN2213 DTC144EK FA1L4M
(POWER OFF Ⓗ:ON)
0
TU.GND Ⓥ
REG.12V Ⓥ
REG.5V Ⓥ
GND Ⓥ
CYL.GND SY
REG.45V SY
U.REG14V SY
REG.12V SY
MT.GND SY
N.SW5.3V SY
REG.5V SY
PW.OFF.Ⓗ SY
GND SY
REG.12V CH
N.SW.12V CH
REG.45V CH
REG.-29V CH
HEATER.+ CH
HEATER.- CH
REG.5V CH
N.SW5.3V CH
GND CH
REG.12V Ⓐ
REG.5V Ⓐ
POWER SUPPLY SECTION IN MAIN C.B.A. (VEP03588E:NV-L25EG) (VEP03588G:NV-L25B)
V..........TO LUMINANCE & CHROMINANCE
A..........TO AUDIO
SY........TO SYSTEM CONTROL & SERVO
CH........TO CHANNEL SELECT
A B C D E F
1 2 3 4 5 6 7 8 9 10 11

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

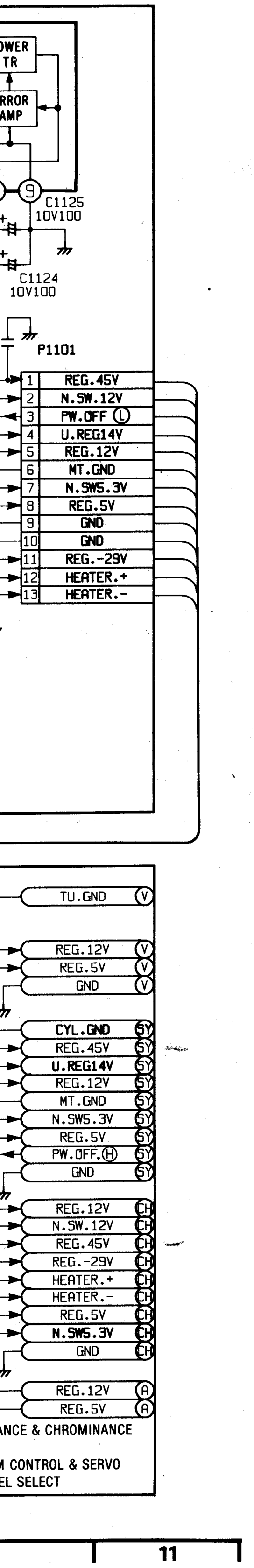
NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

NOTE 1. WHEN MEASURE THE VOLTAGE OR WAVEFORM ON THE POWER TRANSFORMER CIRCUIT, SET THE GND TERMINAL OF MEASURING POINT AS FOLLOWS.
PRIMARY SIDE ..... IC1101-(4)
SECONDARY SIDE ... TP GND OF MAIN C.B.A.

NOTE 2. THE DC VOLTAGE INDICATED IN PRIMARY SIDE IS SHOWN THE VOLTAGE WHEN INPUT AC IS 220V.

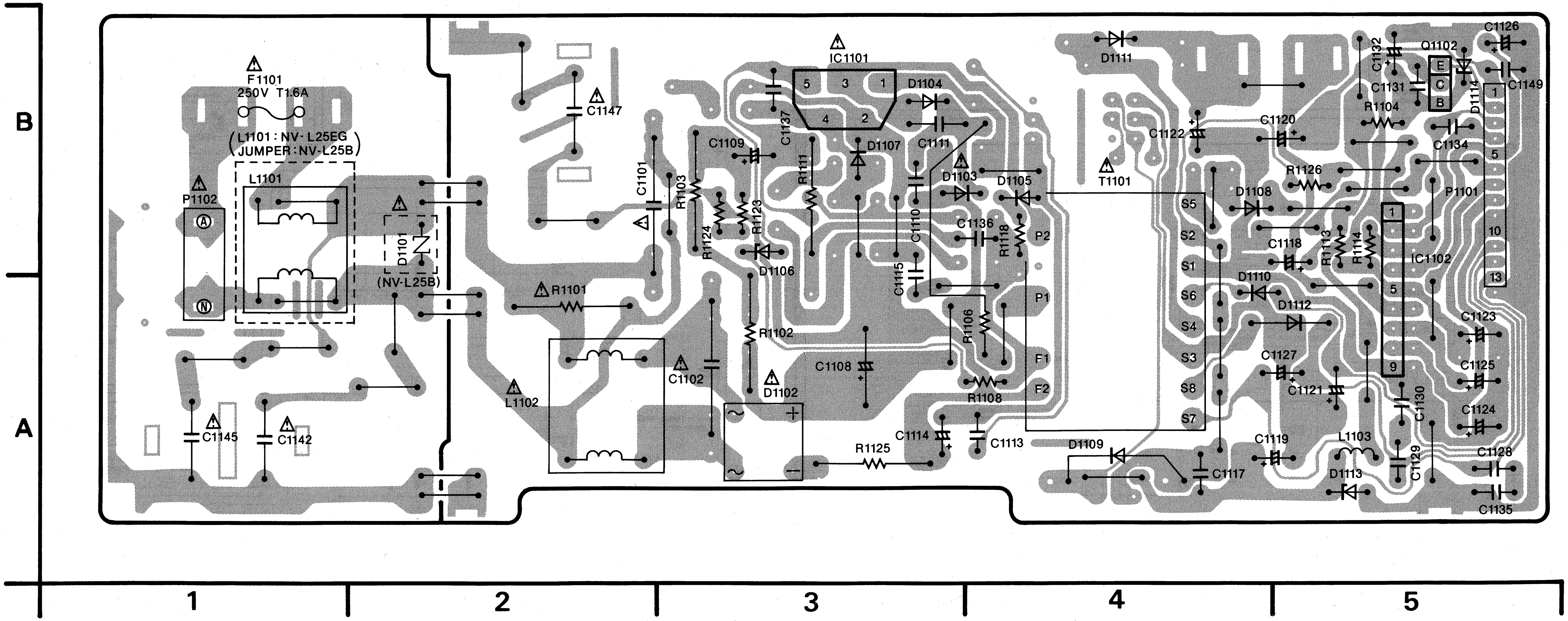
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

3-4. POWER C.B.A. (VEP01379D: NV-L25EG) (VEP01379C: NV-L25B)


WER TR
RROR AMP
C1125 10V100
C1124 10V100
P1101
1 REG.45V
2 N.SW.12V
3 PW.OFF Ⓛ
4 U.REG14V
5 REG.12V
6 MT.GND
7 N.SW5.3V
8 REG.5V
9 GND
10 GND
11 REG.-29V
12 HEATER.+
13 HEATER.-
TU.GND Ⓥ
REG.12V Ⓥ
REG.5V Ⓥ
GND Ⓥ
CYL.GND
REG.45V
U.REG14V
REG.12V
MT.GND
N.SW5.3V
REG.5V
PW.OFF.Ⓗ
GND
REG.12V
N.SW.12V
REG.45V
REG.-29V
HEATER.+
HEATER.-
REG.5V
N.SW5.3V
GND
REG.12V Ⓐ
REG.5V Ⓐ
ANCE & CHROMINANCE
M CONTROL & SERVO
EL SELECT
11

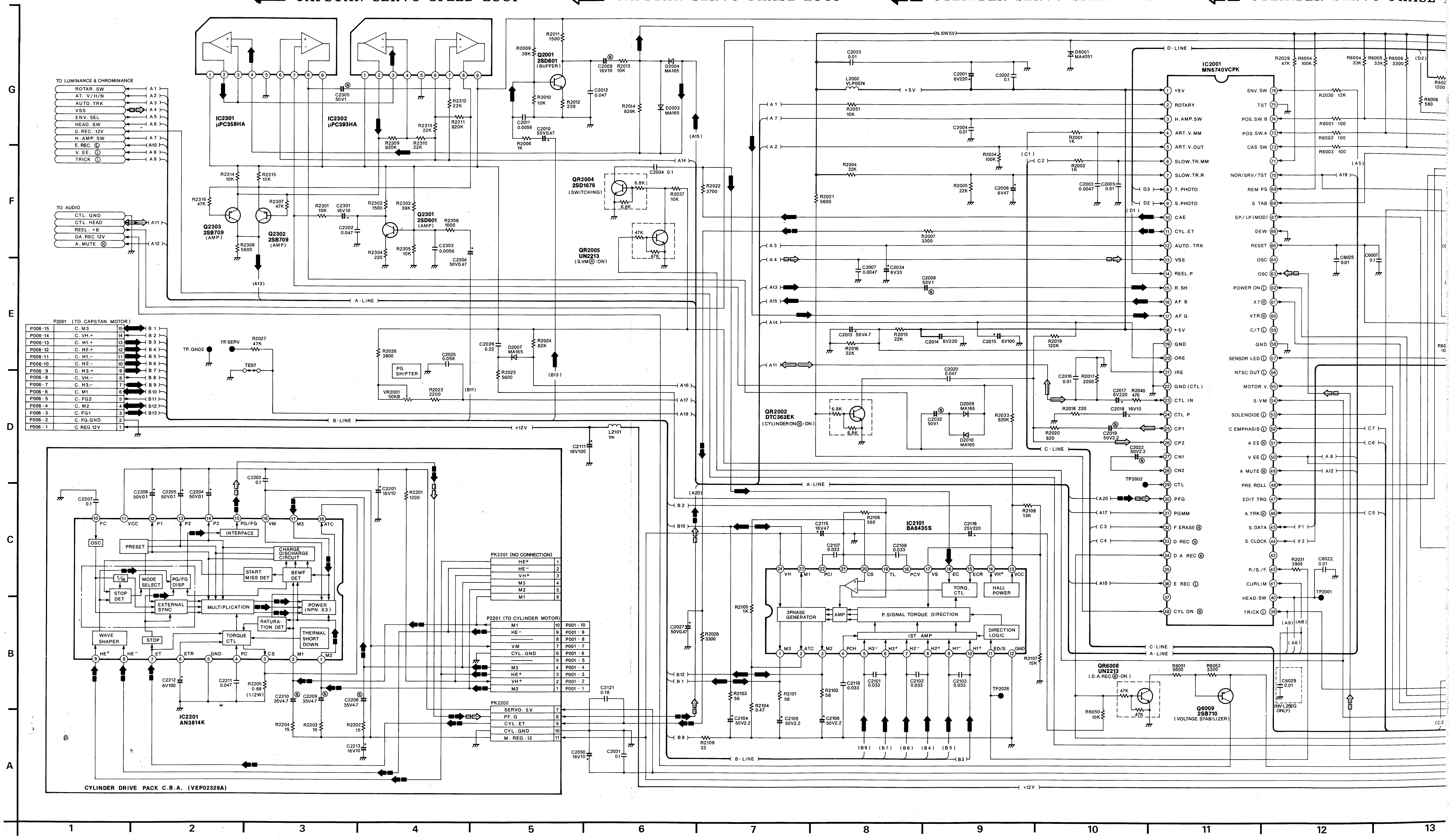
POWER C.B.A.	
Transistor	
Q1102	B-5
Q1103	B-3
Integrated Circuit	
IC1101	B-3
IC1102	B-5
Connector	
P1101	B-5
P1102	B-1

ADDRESS INFORMATION


B
A
1
2
3
4
5
F1101
250V T1.6A
(L1101 : NV-L25EG
JUMPER : NV-L25B)
L1101
P1102
Ⓐ
Ⓝ
D1101
(NV-L25B)
C1145
C1142
C1147
R1101
L1102
C1101
C1102
R1103
R1124
R1123
C1109
D1106
R1102
D1102
IC1101
5 3 1
4 2
C1137
D1104
D1107
C1111
R1111
D1103
D1105
C1110
C1136
R1118
C1115
C1108
R1106
R1108
R1125
C1114
C1113
P2
P1
F1
F2
T1101
S5
S2
S1
S6
S4
S3
S8
S7
D1111
D1109
C1117
C1122
C1120
D1108
C1118
D1110
D1112
C1127
C1121
C1119
R1126
R1113
R1114
L1103
D1113
C1132
C1131
R1104
Q1102
E
C
B
D1114
C1134
C1126
C1149
P1101
1
5
10
13
IC1102
1
5
9
C1130
C1129
C1123
C1125
C1124
C1128
C1135

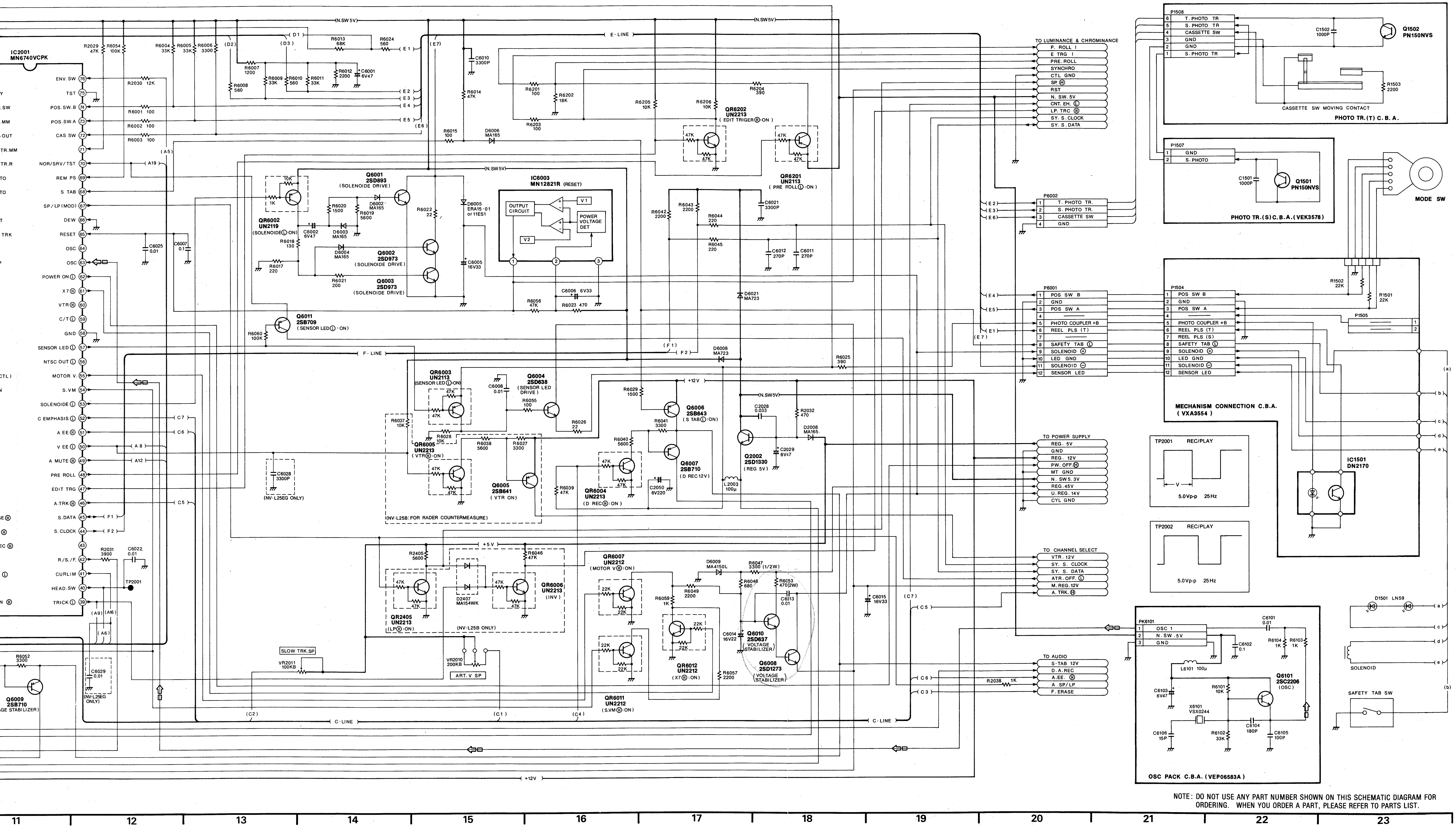
3-5. SYSTEM CONTROL & SERVO SCHEMATIC DIAGRAM

◀ CAPSTAN SERVO SPEED LOOP ◁ CAPSTAN SERVO PHASE LOOP ◀■ CYLINDER SERVO SPEED LOOP ◁□ CYLINDER SERVO PHASE


TO LUMINANCE & CHROMINANCE
ROTAR. SW
AT. V/H/N
AUTO. TRK
VSS
ENV. SEL
HEAD. SW
D. REC. 12V
H. AMP. SW
E. REC. Ⓛ
V. EE. Ⓛ
TRICK Ⓛ
TO AUDIO
CTL. GND
CTL. HEAD
REEL. +B
DA. REC 12V
A. MUTE. Ⓗ
P2001 (TO CAPSTAN MOTOR)
P006-15 C. M3
P006-14 C. VH.+
P006-13 C. H1.+
P006-12 C. H2.+
P006-11 C. H1.-
P006-10 C. H2.-
P006-9 C. H3.+
P006-8 C. VH.-
P006-7 C. H3.-
P006-6 C. M1
P006-5 C. FG2
P006-4 C. M2
P006-3 C. FG1
P006-2 C. FG. GND
P006-1 C. REG 12V
IC2301 μPC358HA
IC2302 μPC393HA
Q2303 2SB709 (AMP)
Q2302 2SB709 (AMP)
Q2301 2SD601 (AMP)
Q2001 2SD601 (BUFFER)
QR2004 2SD1676 (SWITCHING)
QR2005 UN2213 (S.VMⒽ·ON)
QR2002 DTC363EK (CYLINDER ONⒽ·ON)
TP.GND2
TP.SERV
TEST
PG SHIFTER
VR2001 50KB
A-LINE
B-LINE
C-LINE
D-LINE
(N.SW5V)
+5V
+12V
L2101 1m
L2002 VLP0074
D6001 MA4051
D2004 MA165
D2003 MA165
D2007 MA165
D2009 MA165
D2010 MA165
IC2001 MN6740VCPK
+5V
ROTARY
H. AMP. SW
ART. V. MM
ART. V. OUT
SLOW. TR. MM
SLOW. TR. R
T. PHOTO
S. PHOTO
CAE
CYL. ET
AUTO. TRK
VSS
REEL. P
R. SH
AF B
AF G
+5V
GND
ORE
IRE
GND (CTL)
CTL IN
CTL P
CP1
CP2
CN1
CN2
CTL
PFG
PGMM
F ERASE Ⓗ
D REC Ⓗ
D A REC Ⓗ
E REC Ⓛ
CYL ON Ⓗ
ENV. SW
TST
POS. SW. B
POS. SW. A
CAS SW
NOR/SRV/TST
REM PS
S TAB
SP/LP (MOD)
DEW
RESET
OSC
OSC
POWER ON Ⓛ
X7 Ⓗ
VTR Ⓗ
C/T Ⓛ
GND
SENSOR LED Ⓛ
NTSC OUT Ⓛ
MOTOR V.
S. VM
SOLENOIDE Ⓛ
C EMPHASIS Ⓛ
A EE Ⓗ
V EE Ⓛ
A MUTE Ⓗ
PRE ROLL
EDIT TRG
A. TRK Ⓗ
S. DATA
S. CLOCK
R./S./F.
CURLIM
HEAD. SW
TRICK Ⓛ
TP2001
TP2002
TP2026
IC2101 BA6435S
3PHASE GENERATOR
AMP
P. SIGNAL TORQUE DIRECTION
IST AMP
TORQ. CTL
HALL POWER
DIRECTION LOGIC
QR6008 UN2213 (D.A.RECⒽ·ON)
Q6009 2SB710 (VOLTAGE STABILIZER)
(NV-L25EG ONLY)
PK2201 (NO CONNECTION)
HE+ HE- VH+ M3 M2 M1
P2201 (TO CYLINDER MOTOR)
M1 P001-10
HE- P001-9
P001-8
VM P001-7
CYL. GND P001-6
P001-5
M3 P001-4
HE+ P001-3
VH+ P001-2
M2 P001-1
PK2202
SERVO. 5V
PF. G
CYL. ET
CYL. GND
M. REG. 12
IC2201 AN3814K
OSC
PRESET
INTERFACE
CHARGE DISCHARGE CIRCUIT
START MISS DET
BEMF DET
1/16
MODE SELECT
PG/FG DISP
STOP DET
EXTERNAL SYNC
MULTIPLICATION
POWER (NPN X3)
RATURATION DET
THERMAL SHORT DOWN
WAVE SHAPER
STOP
TORQUE CTL
CYLINDER DRIVE PACK C.B.A. (VEP02329A)
G F E D C B A
1 2 3 4 5 6 7 8 9 10 11 12 13

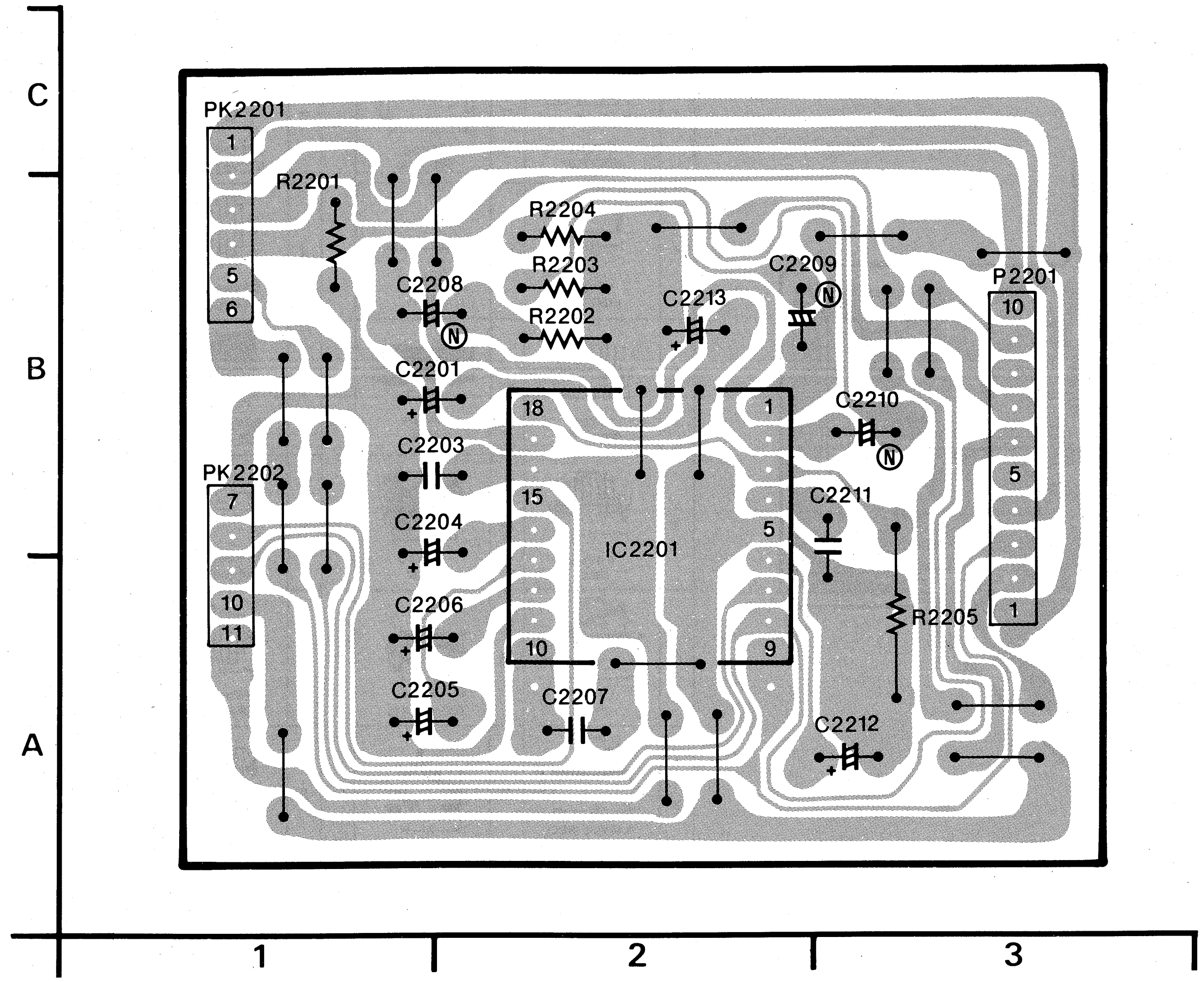
Back Page: POWER Section

CYLINDER SERVO PHASE LOOP

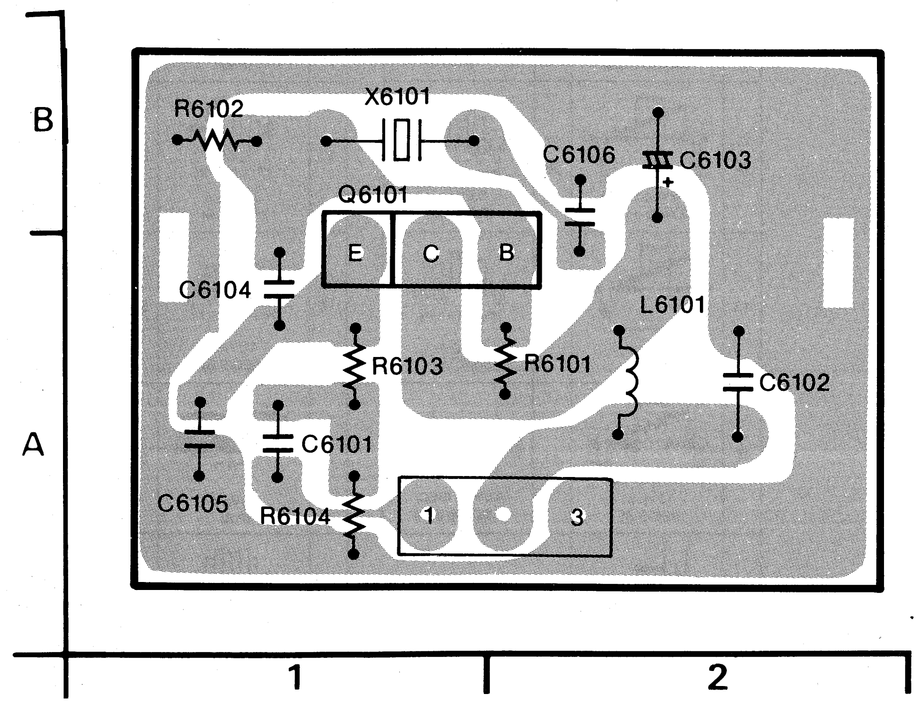

IC2001 MN6740VCPK
IC6003 MN12821R (RESET)
OUTPUT CIRCUIT
POWER VOLTAGE DET
Q6001 2SB893 (SOLENOIDE DRIVE)
Q6002 2SD973 (SOLENOIDE DRIVE)
Q6003 2SD973 (SOLENOIDE DRIVE)
QR6002 UN2119 (SOLENOIDE Ⓛ·ON)
Q6011 2SB709 (SENSOR LED Ⓛ : ON)
QR6003 UN2113 (SENSOR LED Ⓛ·ON)
Q6004 2SD638 (SENSOR LED DRIVE)
QR6005 UN2213 (VTR Ⓗ·ON)
Q6005 2SB641 (VTR ON)
(NV-L25B: FOR RADER COUNTERMEASURE)
C6028 3300P (NV-L25EG ONLY)
Q6006 2SB643 (S TAB Ⓛ·ON)
Q6007 2SB710 (D REC 12V)
QR6004 UN2213 (D REC Ⓗ·ON)
Q2002 2SD1330 (REG 5V)
QR6202 UN2213 (EDIT TRIGER Ⓗ·ON)
QR6201 UN2113 (PRE ROLL Ⓛ·ON)
QR2405 UN2213 (LP Ⓗ·ON)
D2407 MA154WK
QR6006 UN2213 (INV)
(NV-L25B ONLY)
QR6007 UN2212 (MOTOR V Ⓗ·ON)
QR6012 UN2212 (X7 Ⓗ·ON)
QR6011 UN2212 (S.VM Ⓗ·ON)
Q6010 2SD637 (VOLTAGE STABILIZER)
Q6008 2SD1273 (VOLTAGE STABILIZER)
Q6009 2SB710 (VOLTAGE STABILIZER)
SLOW TRK.SP
ART. V SP
TP2001
C-LINE
E-LINE
F-LINE
(N.SW 5V)
+12V
+5V
TO LUMINANCE & CHROMINANCE
P.ROLL Ⓘ
E TRG Ⓘ
PRE.ROLL
SYNCHRO
CTL GND
SP Ⓗ
RST
N. SW. 5V
CNT. EH. Ⓛ
LP. TRC Ⓗ
SY. S. CLOCK
SY. S. DATA
P6002
T. PHOTO TR.
S. PHOTO TR.
CASSETTE SW
GND
P6001
POS SW B
GND
POS SW A
PHOTO COUPLER +B
REEL PLS (T)
REEL PLS (S)
SAFETY TAB Ⓛ
SOLENOID ⊕
LED GND
SOLENOID ⊖
SENSOR LED
TO POWER SUPPLY
REG. 5V
GND
REG. 12V
PW. OFF Ⓗ
MT GND
N. SW5. 3V
REG. 45V
U. REG. 14V
CYL GND
TO CHANNEL SELECT
VTR. 12V
SY. S. CLOCK
SY. S. DATA
ATR. OFF. Ⓛ
M. REG. 12V
A. TRK. Ⓗ
TO AUDIO
S-TAB 12V
D. A. REC
A. EE. Ⓗ
A SP/LP
F. ERASE
P1508
T. PHOTO TR
S. PHOTO TR
CASSETTE SW
GND
GND
S. PHOTO TR
Q1502 PN150NVS
CASSETTE SW MOVING CONTACT
PHOTO TR. (T) C. B. A.
P1507
GND
S. PHOTO
Q1501 PN150NVS
PHOTO TR. (S) C.B.A. (VEK3578)
MODE SW
P1504
P1505
MECHANISM CONNECTION C.B.A. (VXA3554)
IC1501 DN2170
TP2001 REC/PLAY
5.0Vp-p 25Hz
TP2002 REC/PLAY
5.0Vp-p 25Hz
PK6101
OSC 1
N. SW. 5V
GND
Q6101 2SC2206 (OSC)
X6101 VSX0244
L6101 100μ
OSC PACK C.B.A. (VEP06583A)
D1501 LN59
SOLENOID
SAFETY TAB SW
11
12
13
14
15
16
17
18
19
20
21
22
23

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

3-6. CYLINDER DRIVE PACK C.B.A. (VEP02329A)


C
B
A
PK2201
1
5
6
R2201
R2204
R2203
R2202
C2208
C2201
C2203
C2204
C2206
C2205
C2207
C2213
C2209
C2210
C2211
C2212
R2205
IC2201
18
15
10
1
5
9
P2201
10
5
1
PK2202
7
10
11
N
1
2
3

3-7. OSC PACK C.B.A. (VEP06583A)


B
A
R6102
X6101
C6106
C6103
Q6101
E
C
B
C6104
L6101
R6103
R6101
C6102
C6101
C6105
R6104
1
3
1
2

CYLINDER DRIVE PACK C.B.A.	
Integrated Circuit	
IC2201	B-2
Connector	
P2201	B-3
PK2201	C-1
PK2202	A-1

ADDRESS INFORMATION

OSC PACK C.B.A.	
Transistor	
Q6101	B-1

ADDRESS INFORMATION

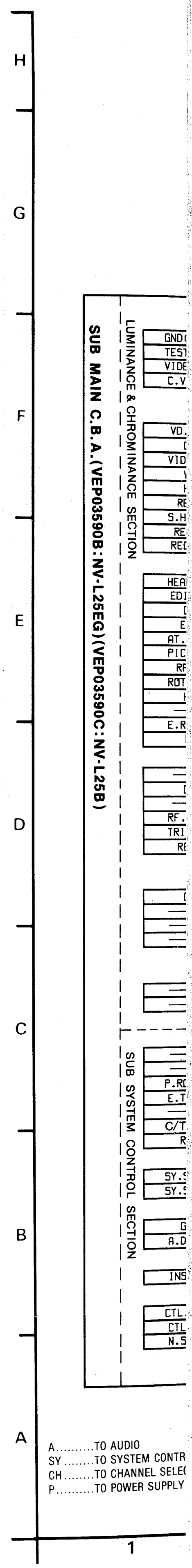
SYSTEM CONTROL & SERVO ICs DC VOLTAGE CHART (SP MODE)

REF. NO.	IC2001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	5.0	5.0	0	0	0	0	2.5	3.3	3.2	4.2	4.2	1.7	2.4	0.3	2.5	2.5	2.5	5.0	0	2.5
PLAY	5.0	2.7	0	0	0	0	2.5	3.2	3.2	2.5	2.5	2.1	2.4	5.2	2.4	2.4	2.5	5.0	0	2.5
F.F.	5.0	5.0	0	0	0	0	2.5	3.3	3.2	2.5	4.2	1.7	2.4	2.7	2.5	2.5	2.5	5.0	0	2.5
REF. NO.	IC2001																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
STOP	2.5	0	2.5	2.5	1.1	2.8	3.9	2.1	0	5.1	0.1	0	0	0	0	0.2	0	0	5.0	0
PLAY	2.5	0	2.4	2.4	1.1	2.3	3.8	3.0	3.5	1.1	3.1	0	0	0	5.0	0.2	0	4.9	5.0	3.0
F.F.	2.5	0	2.5	2.4	1.4	1.5	3.6	3.3	2.9	5.1	0.1	0	0	0	0	0.2	0	0	5.0	0
REF. NO.	IC2001																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
STOP	4.9	2.0	0	4.7	4.5	0	0	5.0	0	0	5.0	0	5.0	0	0	5.0	4.6	0	0	0
PLAY	4.9	0	0	4.6	4.6	0	0	5.0	0	5.0	0	5.0	5.0	0	4.9	5.0	4.6	0	0	0
F.F.	4.9	0	0	4.7	4.7	0	0	5.0	0	0	5.0	0	5.0	0	0	5.0	4.6	0	0	0
REF. NO.	IC2001																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76				
STOP	5.0	0	0	2.5	5.0	0	0	0.5	5.0	4.7	5.0	2.1	5.0	2.0	0	0.1				
PLAY	5.0	0	2.5	2.5	5.0	0	0	0.5	5.0	4.7	5.0	2.1	0	5.0	0	4.5				
F.F.	5.0	0	2.5	—	5.0	0	0	0.5	5.0	4.6	5.0	2.1	5.0	2.0	0	0.1				
REF. NO.	IC2101																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	7.2	0	7.2	1.3	2.1	2.2	2.1	2.2	2.2	2.1	2.0	0	5.1	3.8	2.8	0.1	5.1	0	0.4	0
PLAY	2.1	0	2.0	1.3	2.2	2.2	2.1	2.1	2.2	2.2	0	0	5.1	3.8	2.8	2.5	5.1	0.6	0.4	0
F.F.	3.2	0	3.2	1.3	2.2	2.2	2.2	2.2	2.2	2.2	0	0	5.1	3.9	2.8	2.5	5.1	0.5	0.4	0
REF. NO.	IC2101																			
MODE	21	22	23	24																
STOP	0	0.5	7.2	14.3																
PLAY	0	0.6	2.0	10.3																
F.F.	0	0.6	3.0	14.2																
REF. NO.	IC2201																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
STOP	13.8	13.8	0	0	0	2.6	4.2	0.5	0.4	1.3	5.2	4.3	4.3	4.0	5.1	13.8	13.8	0		
PLAY	9.8	9.8	0	0.5	0	2.6	2.5	0.5	0.5	2.8	5.1	3.7	3.8	3.8	1.0	9.9	9.8	0		
F.F.	13.6	13.6	0	0	0	2.6	4.2	0.5	0.4	1.2	5.2	4.3	4.3	4.0	5.1	13.6	13.6	0		
REF. NO.	IC2301										IC2302									
MODE	1	2	3	4	5	6	7	8	9		1	2	3	4	5	6	7	8	9	
STOP	5.1	2.5	2.5	2.5	0	2.5	2.5	2.4	5.1		5.1	0.3	2.5	2.4	0	2.4	2.5	0.3	5.1	
PLAY	5.1	2.4	2.5	2.5	0	2.5	2.4	2.4	5.1		5.1	1.7	2.4	2.4	0	2.4	2.4	1.7	5.1	
F.F.	5.1	2.5	2.5	2.5	0	2.5	2.5	2.4	5.1		5.1	1.6	2.5	2.4	0	2.4	2.5	1.6	5.1	
REF. NO.	IC6003																			
MODE	1	2	3																	
STOP	5.0	5.1	0																	
PLAY	5.0	5.0	0																	
F.F.	5.0	5.1	0																	

SYSTEM CONTROL & SERVO TRANSISTORs DC VOLTAGE CHART (SP MODE)

REF. NO.	Q2001			Q2002			Q2301			Q2302			Q2303			Q6001		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	0.4	2.5	1.0	5.1	5.4	0	0.4	2.5	1.0	0.4	0	0.4	0.4	0	0.4	0	14.6	0.1
PLAY	0.4	2.4	1.0	5.1	5.4	5.8	0.4	2.4	1.0	1.7	0.9	1.9	1.7	0.9	1.9	0	14.4	0.1
F.F.	0.4	2.5	1.0	5.1	5.4	5.8	0.4	2.5	1.0	1.6	1.0	1.6	1.6	1.0	1.8	0	14.4	0.1
REF. NO.	Q6002			Q6003			Q6004			Q6005			Q6006			Q6007		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	0	14.6	0.1	0	0.2	0	0.6	14.3	0.5	12.3	0	12.2	12.3	12.3	11.5	12.3	−0.2	12.3
PLAY	0.1	14.4	0.1	0	0.2	0	0.5	10.4	0.3	12.3	0	12.2	12.3	12.2	11.5	12.2	−0.2	12.2
F.F.	0.1	14.5	0.2	0	0	0	0.6	14.1	0.3	12.3	0	12.2	12.3	12.3	11.5	12.3	−0.2	12.3
REF. NO.	Q6008			Q6009			Q6010			Q6011								
MODE	E	C	B	E	C	B	E	C	B	E	C	B						
STOP	14.2	14.6	14.7	12.3	0.2	12.3	14.7	43.7	15.2	4.7	0	4.6						
PLAY	10.4	14.4	11.0	12.2	0.2	12.2	11.0	43.8	11.5	4.7	0	4.6						
F.F.	14.1	14.4	14.7	12.3	0	12.3	14.7	43.7	15.2	4.7	0	4.6						
REF. NO.	QR2002			QR2004			QR2005			QR2405			QR6002			QR6003		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	0	0	0	0	0	2.6	0	2.6	0	0	4.5	0	5.1	0	5.0	5.1	0.6	4.6
PLAY	0	0	4.9	0	0	2.6	0	2.6	0	0	4.4	0	5.1	0	5.0	5.1	0.3	4.7
F.F.	0	1.1	0	0	0	2.6	0	2.6	0	0	4.5	0	5.1	0	5.0	5.1	0.3	4.6
REF. NO.	QR6004			QR6005			QR6006			QR6007			QR6008			QR6011		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	0	12.3	0	0	12.2	0	0	0	4.5	0	15.2	0	0	12.3	0	0	15.2	0
PLAY	0	12.2	0	0	12.2	0	0	0	4.5	0	0.1	4.9	0	12.2	0	0	11.5	0
F.F.	0	12.3	0	0	12.2	0	0	0	4.5	0	15.2	0	0	12.3	0	0	15.2	0
REF. NO.	QR6012			QR6201			QR6202											
MODE	E	C	B	E	C	B	E	C	B									
STOP	0	0	0	5.1	0	5.0	0	5.0	0									
PLAY	0	0	0	5.1	0	5.0	0	5.0	0									
F.F.	0	0	0	5.1	0	5.0	0	5.0	0									

3-8. LUM


H
G
F
E
D
C
B
A
1
SUB MAIN C.B.A. (VEP03590B:NV-L25EG)(VEP03590C:NV-L25B)
LUMINANCE & CHROMINANCE SECTION
SUB SYSTEM CONTROL SECTION
A..........TO AUDIO
SY..........TO SYSTEM CONTR
CH..........TO CHANNEL SELE
P...........TO POWER SUPPLY

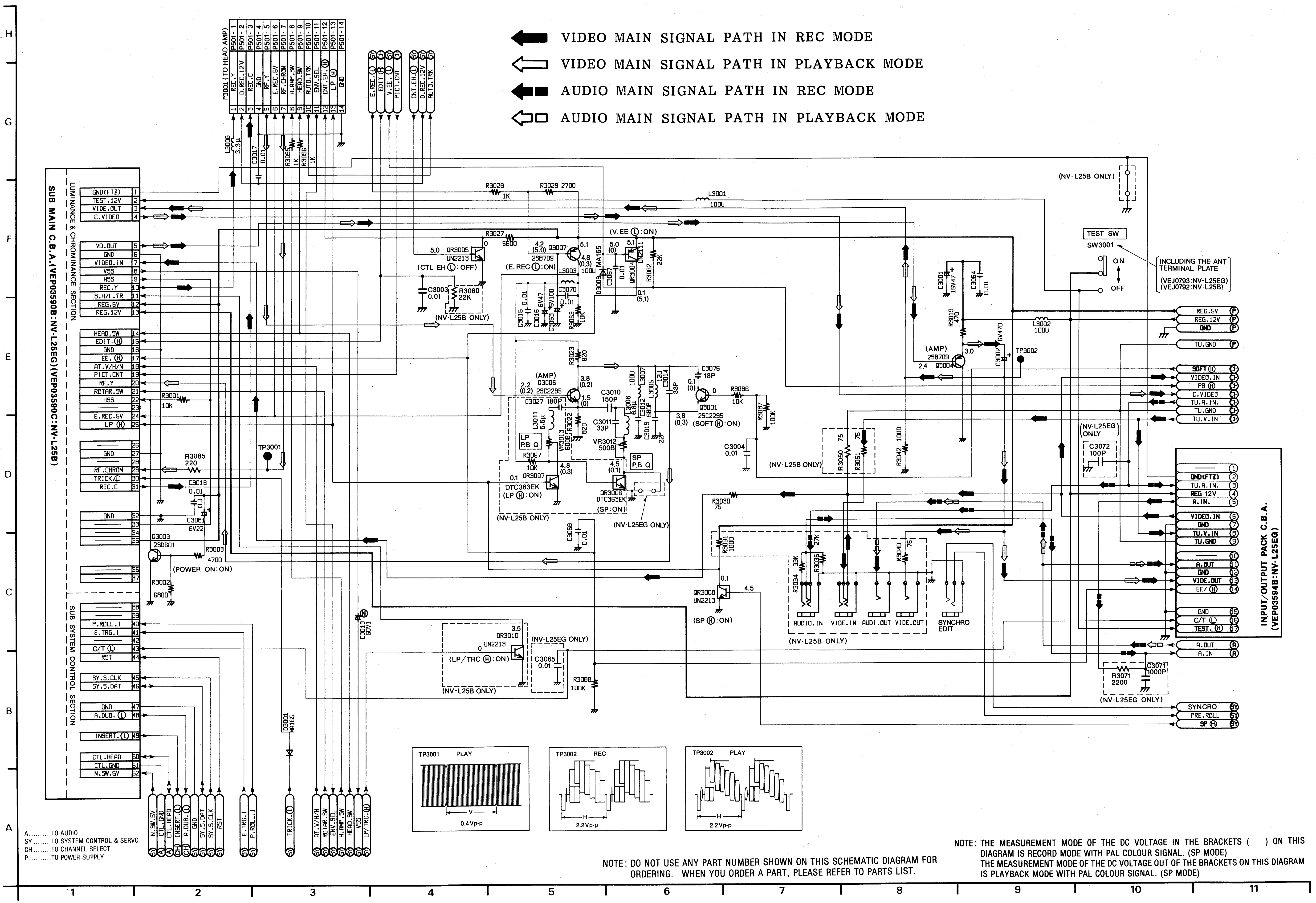
DE)

7	18	19	20
5	5.0	0	2.5
5	5.0	0	2.5
5	5.0	0	2.5
7	38	39	40
	0	5.0	0
	4.9	5.0	3.0
	0	5.0	0
7	58	59	60
6	0	0	0
6	0	0	0
6	0	0	0
7	18	19	20
1	0	0.4	0
1	0.6	0.4	0
1	0.5	0.4	0
7	18		
8	0		
3	0		
6	0		
	8	9	
5	0.3	5.1	
4	1.7	5.1	
5	1.6	5.1	

E)

01	
	B
6	0.1
4	0.1
4	0.1
07	
	B
.2	12.3
.2	12.2
.2	12.3
003	
	B
6	4.6
3	4.7
3	4.6
011	
	B
2	0
5	0
2	0

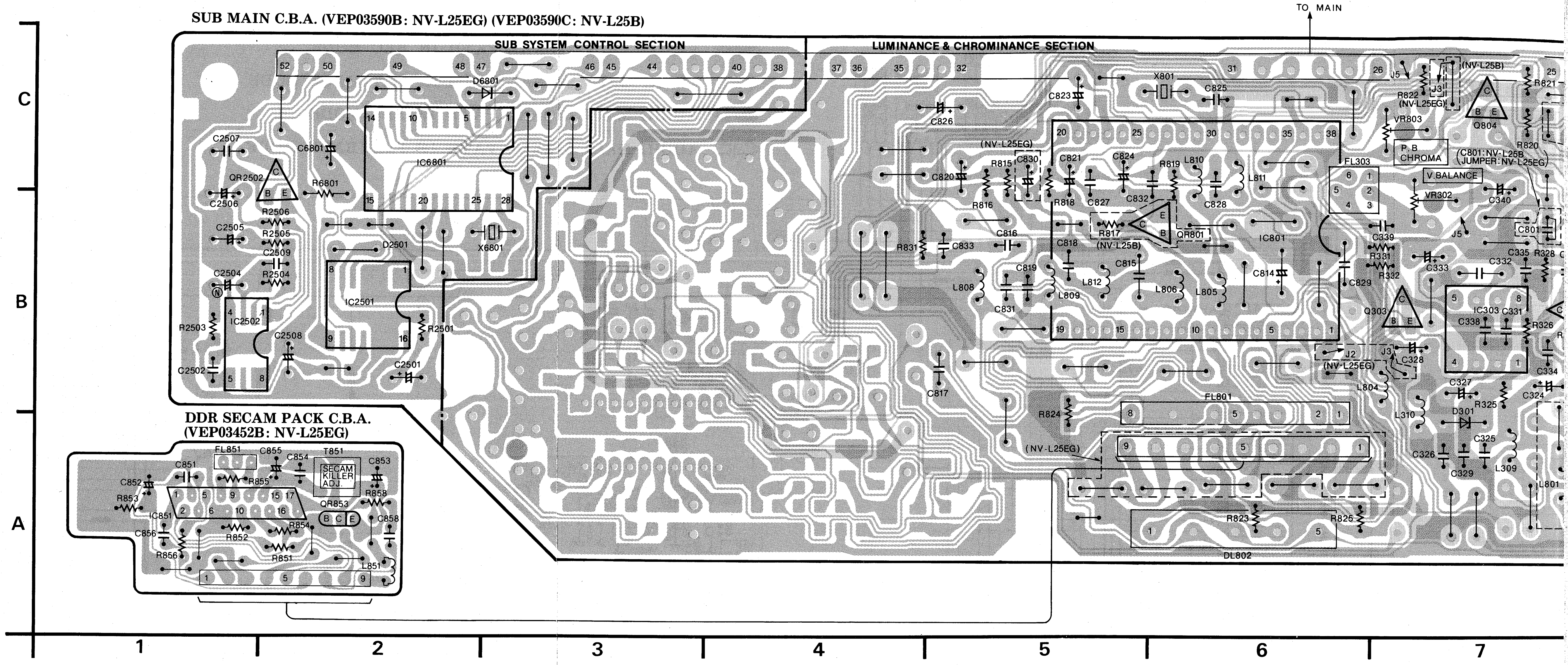
3-8. LUMINANCE & CHROMINANCE SCHEMATIC DIAGRAM


VIDEO MAIN SIGNAL PATH IN REC MODE
VIDEO MAIN SIGNAL PATH IN PLAYBACK MODE
AUDIO MAIN SIGNAL PATH IN REC MODE
AUDIO MAIN SIGNAL PATH IN PLAYBACK MODE
SUB MAIN C.B.A.(VEP03590B:NV-L25EG)(VEP03590C:NV-L25B)
LUMINANCE & CHROMINANCE SECTION
SUB SYSTEM CONTROL SECTION
P3001 (TO HEAD AMP)
P501-1 REC.Y
P501-2 D.REC.12V
P501-3 REC.C
P501-4 GND
P501-5 RF.Y
P501-6 E.REC.5V
P501-7 RF.CHROM
P501-8 H.AMP.SW
P501-9 HEAD.SW
P501-10 AUTO.TRK
P501-11 ENV.SEL
P501-12 CNT.EH.Ⓗ
P501-13 LP Ⓗ
P501-14 GND
E.REC.Ⓛ
EDIT Ⓗ
V.EE.Ⓛ
PICT.CNT
CNT.EH.Ⓛ
D.REC.12V
AUTO.TRK
GND(FTZ) 1
TEST.12V 2
VIDE.OUT 3
C.VIDEO 4
VD.OUT 5
GND 6
VIDEO.IN 7
VSS 8
HSS 9
REC.Y 10
S.H/L.TR 11
REG.5V 12
REG.12V 13
HEAD.SW 14
EDIT.Ⓗ 15
GND 16
EE.Ⓗ 17
AT.V/H/N 18
PICT.CNT 19
RF.Y 20
ROTAR.SW 21
HSS 22
E.REC.5V 24
LP Ⓗ 25
GND 27
RF.CHROM 29
TRICK.Ⓛ 30
REC.C 31
GND 32
P.ROLL.I 40
E.TRG.I 41
C/T Ⓛ 43
RST 44
SY.S.CLK 45
SY.S.DAT 46
GND 47
A.DUB.Ⓛ 48
INSERT.Ⓛ 49
CTL.HEAD 50
CTL.GND 51
N.SW.5V 52
L3008 3.3μ
C3017 0.01
R3095 1K
R3096 1K
R3028 1K
R3029 2700
L3001 100U
R3027 5600
QR3005 UN2213
(CTL EH Ⓛ: OFF)
Q3007 2SB709
(E.REC Ⓛ: ON)
L3003
C3069 100U
D3009 MA165
C3067 0.01
QR3004 UN2111
R3062 22K
(V.EE Ⓛ: ON)
C3003 0.01
R3060 22K
(NV-L25B ONLY)
C3015 0.01
C3016 6V47
C3070
C3063 6V100
R3063 10K
R3023 820
(AMP) Q3006 2SC2295
C3027 180P
L3011 5.6μ
VR3013 500B
R3022 820
C3010 150P
C3011 33P
VR3012 500B
L3006 6.8μ
L3007 100U
L3005 12U
C3012 680P
C3014 33P
C3019 22P
C3076 18P
R3086 10K
R3087 100K
Q3001 2SC2295 (SOFT Ⓗ: ON)
LP P.B Q
SP P.B Q
R3057 10K
QR3007 DTC363EK (LP Ⓗ: ON)
QR3006 DTC363EK (SP: ON)
(NV-L25EG ONLY)
C3068 0.01
R3001 10K
R3085 220
TP3001
C3018 0.01
C3081 6V22
Q3003 2SD601
R3003 4700
(POWER ON: ON)
R3002 6800
C3013 50V1
QR3010 UN2213
(LP/TRC Ⓗ: ON)
C3065 0.01
R3088 100K
D3001 MA165
C3004 0.01
R3030 75
R3031 1000
QR3008 UN2213 (SP Ⓗ: ON)
R3050 75
R3051 75
R3042 1000
R3034 33K
R3036 27K
R3040 75
AUDIO.IN
VIDEO.IN
AUDI.OUT
VIDEO.OUT
SYNCHRO EDIT
C3001 16V47
C3054 0.01
R3019 470
(AMP) 2SB709 Q3004
C3002 6V470
TP3002
L3002 100U
TEST SW SW3001
ON
OFF
(NV-L25B ONLY)
INCLUDING THE ANT TERMINAL PLATE
(VEJ0793:NV-L25EG)
(VEJ0792:NV-L25B)
REG.5V Ⓟ
REG.12V Ⓟ
GND Ⓟ
TU.GND Ⓟ
SOFT Ⓗ CH
VIDEO.IN CH
PB Ⓗ CH
C.VIDEO CH
TU.A.IN. CH
TU.GND CH
TU.V.IN CH
C3072 100P
INPUT/OUTPUT PACK C.B.A. (VEP03594B:NV-L25EG)
GND(FTZ) 1
TU.A.IN. 2
REG 12V 3
A.IN. 4
VIDEO.IN 5
GND 6
TU.V.IN 7
TU.GND 8
A.OUT 10
GND 11
VIDE.OUT 12
EE/ Ⓗ 13
GND 14
C/T Ⓛ 15
TEST. Ⓗ 16
A.OUT Ⓐ
A.IN Ⓐ
R3071 2200
C3071 1000P
SYNCRO SY
PRE.ROLL SY
SP Ⓗ SY
TP3601 PLAY
0.4Vp-p
TP3002 REC
2.2Vp-p
TP3002 PLAY
2.2Vp-p
A..........TO AUDIO
SY........TO SYSTEM CONTROL & SERVO
CH........TO CHANNEL SELECT
P..........TO POWER SUPPLY
H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11

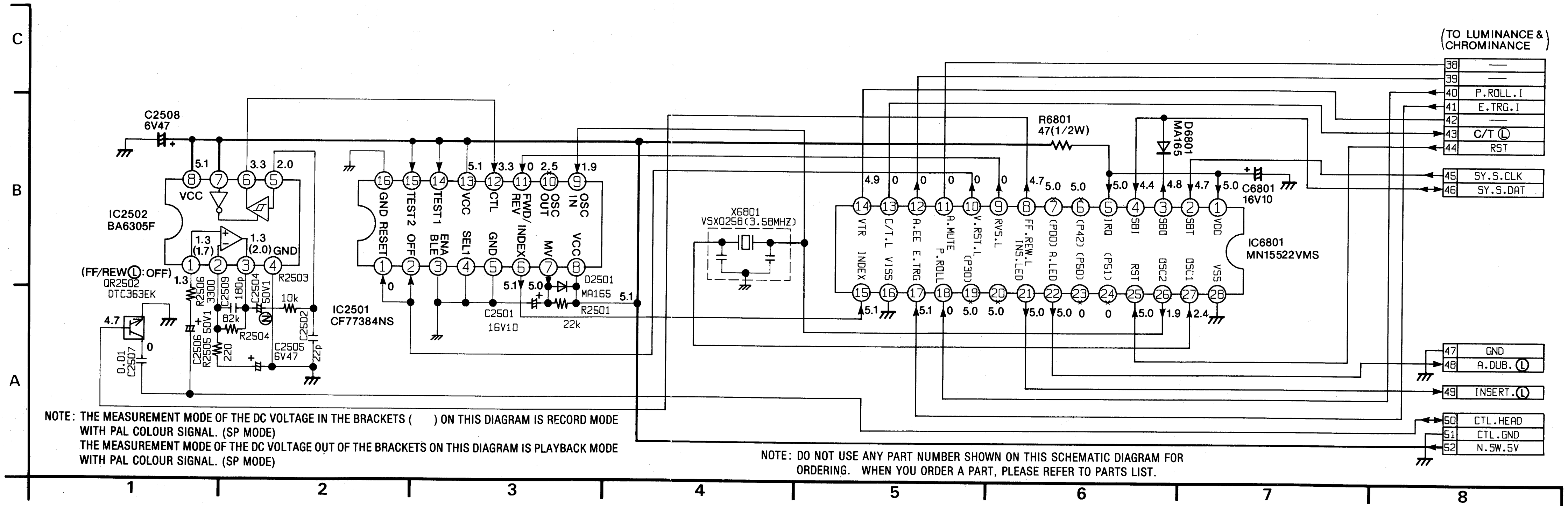
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL. (SP MODE)
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL. (SP MODE)

3-9. SUB MAIN C.B.A. (VEP03590B: NV-L25EG) (VEP03590C: NV-L25B)


SUB MAIN C.B.A. (VEP03590B: NV-L25EG) (VEP03590C: NV-L25B)
SUB SYSTEM CONTROL SECTION
LUMINANCE & CHROMINANCE SECTION
TO MAIN
DDR SECAM PACK C.B.A.
(VEP03452B: NV-L25EG)
SECAM KILLER ADJ.
IC6801
IC2501
IC2502
IC801
IC303
IC851
QR2502
QR801
QR853
Q804
Q303
X6801
X801
FL801
FL303
FL851
DL802
T851
P.B CHROMA
V.BALANCE
VR803
VR302
(C801: NV-L25B, JUMPER: NV-L25EG)
(NV-L25EG)
(NV-L25B)
C
B
A
1
2
3
4
5
6
7

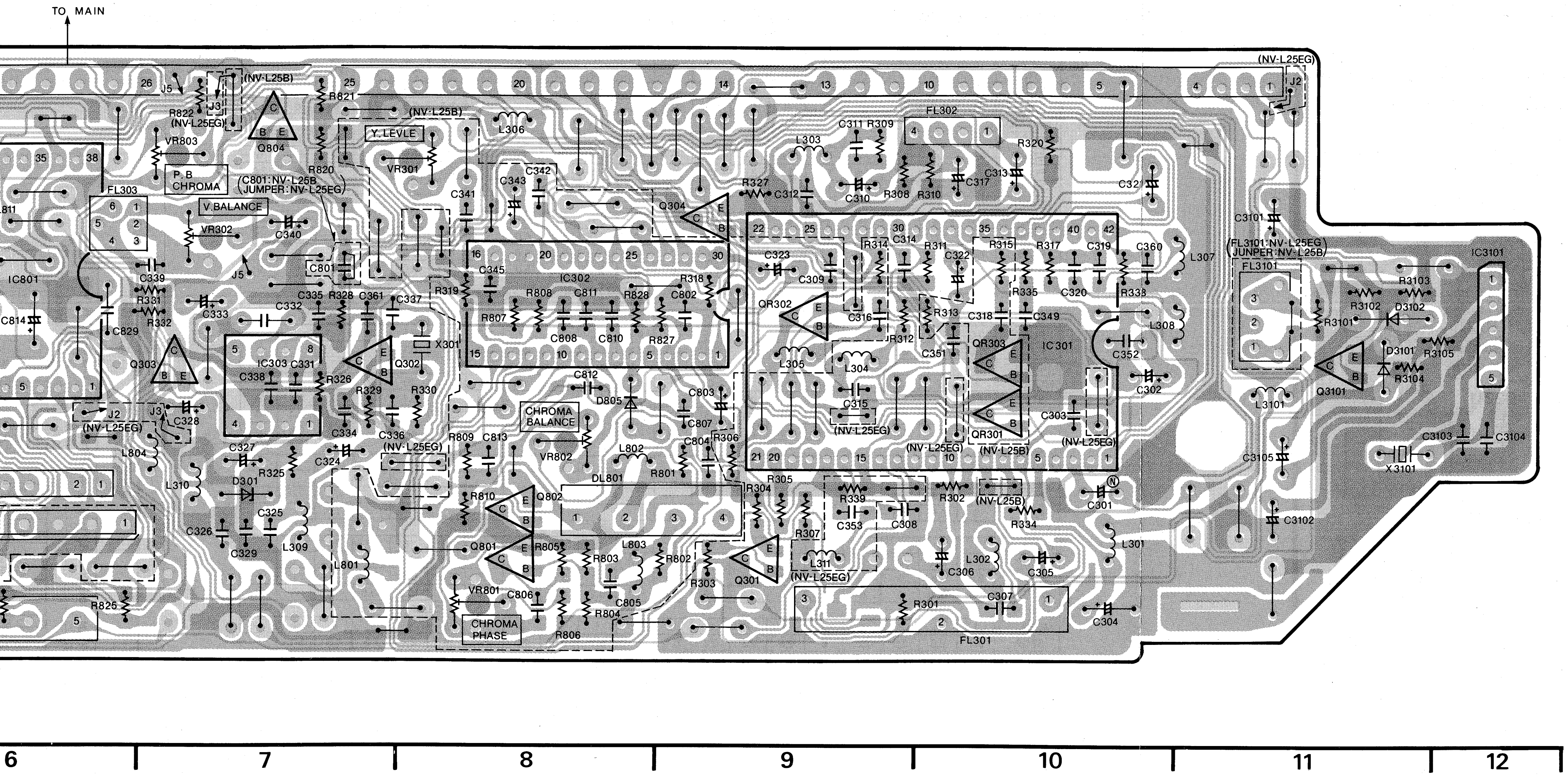
3-10. SUB MAIN (SUB SYSTEM CONTROL) SCHEMATIC DIAGRAM


C
B
A
(TO LUMINANCE & CHROMINANCE)
38 —
39 —
40 P.ROLL.I
41 E.TRG.I
42 —
43 C/T Ⓛ
44 RST
45 SY.S.CLK
46 SY.S.DAT
47 GND
48 A.DUB.Ⓛ
49 INSERT.Ⓛ
50 CTL.HEAD
51 CTL.GND
52 N.SW.5V
C2508 6V47
IC2502 BA6305F
VCC
GND
(FF/REW Ⓛ: OFF)
QR2502 DTC363EK
IC2501 CF77384NS
GND RESET
TEST2 OFF
TEST1 ENA BLE
VCC SEL1
CTL GND
FWD/REV INDEX
OSC OUT MV
OSC IN VCC
D2501 MA165
R2501 22k
C2501 16V10
X6801 VSX0258(3.58MHZ)
R6801 47(1/2W)
D6801 MA165
C6801 16V10
IC6801 MN15522VMS
VTR INDEX
C/T.L V1SS
A.EE E.TRG
A.MUTE P.ROLL
V.RST.L (P30)
RVS.L
FF.REW.L INS.LED
(P00) A.LED
(P42) (P50)
IRQ (P51)
SBI RST
SBO OSC2
SBT OSC1
VDD VSS
1
2
3
4
5
6
7
8

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL. (SP MODE)
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL. (SP MODE)

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

Back Page:
CYLINDER DRIVE/
OSC/LUMINANCE &
CHROMINANCE Section


TO MAIN
(NV-L25B)
(NV-L25EG)
J5
R822
(NV-L25EG)
J3
VR803
Q804
R821
R820
(C801:NV-L25B)
(JUMPER:NV-L25EG)
Y. LEVLE
VR301
P.B
CHROMA
V.BALANCE
VR302
FL303
IC801
C814
C829
Q303
IC303
C331
C338
R326
R329
R330
Q302
X301
J2
(NV-L25EG)
C328
L804
C327
C324
C334
C336
(NV-L25EG)
D301
L310
C325
R325
C326
C329
L309
L801
R825
L306
C341
C343
C342
C345
C339
R331
R332
C333
C332
R328
C361
C337
R319
IC302
C811
R808
R807
R828
C802
R318
C808
C810
R827
C812
D805
C803
C807
CHROMA
BALANCE
R809
C813
VR802
L802
C804
R306
DL801
R801
R810
Q802
Q801
R805
R803
L803
R802
VR801
C806
C805
R804
CHROMA
PHASE
R806
R303
Q301
Q304
R327
C312
L303
C311
R309
C310
R308
R310
FL302
C317
C313
R320
C321
QR302
C323
C309
C316
R312
R313
L305
L304
C315
(NV-L25EG)
R314
C314
R311
C322
R315
R317
C319
C360
R335
C320
R333
C318
C349
C351
QR303
IC301
L308
C352
C302
QR301
C303
(NV-L25EG)
(NV-L25B)
(NV-L25EG)
R305
R304
R339
R302
(NV-L25B)
R334
C301
C353
C308
R307
L311
(NV-L25EG)
C306
L302
C305
L301
FL301
R301
C307
C304
L307
C3101
(FL3101:NV-L25EG)
(JUMPER:NV-L25B)
FL3101
IC3101
R3103
R3102
D3102
R3101
D3101
R3105
R3104
Q3101
L3101
C3105
C3103
C3104
X3101
C3102
(NV-L25EG)
J2
6
7
8
9
10
11
12

ANCE &)
ANCE

L.I
G.I

CLK
DAT

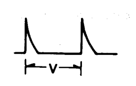
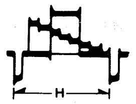
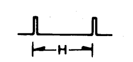
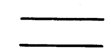
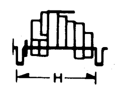
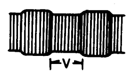
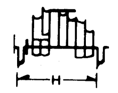
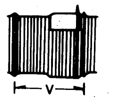
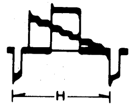
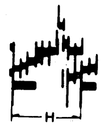
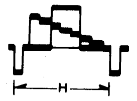
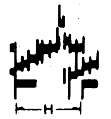
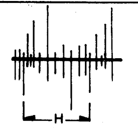
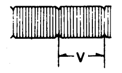
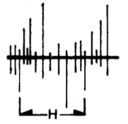
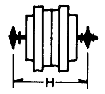
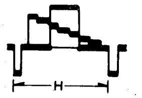
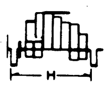
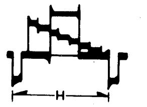
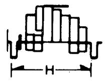
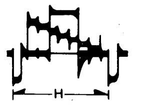
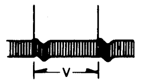
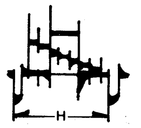
.Ⓛ
T.Ⓛ

EAD
ND
5V

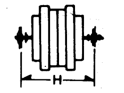
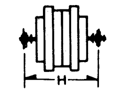
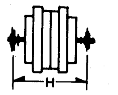
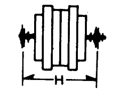
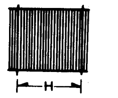
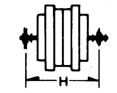
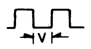
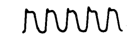
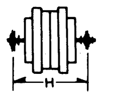
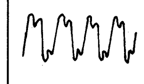
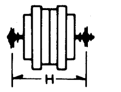
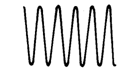
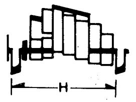
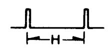
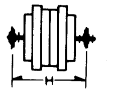
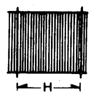
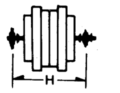
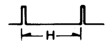
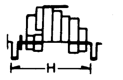
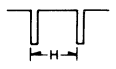
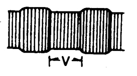
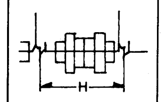
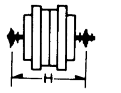
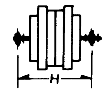
SUB MAIN C.B.A.	
Transistor	
Q301	A-9
Q302	B-7
Q303	B-7
Q304	C-9
Q801	A-8
Q802	A-8
Q804	C-7
Q3101	B-11
Transistor & Resistor	
QR301	B-10
QR302	B-9
QR303	B-10
QR801	B-6
QR853	A-2
QR2502	C-2
Integrated Circuit	
IC301	B-10
IC302	B-8
IC303	B-7
IC801	B-6
IC851	A-1
IC2501	B-2
IC2502	B-1
IC3101	B-12
IC6801	C-2
Adjustment	
T851	A-2
VR301	C-8
VR302	C-7
VR801	A-8
VR802	B-8
VR803	C-7

ADDRESS INFORMATION

IC301 (VEFH03D)

PIN NO.	WAVEFORM	PIN NO.	WAVEFORM
1	 2.0Vp-p (REC/P.B)	17	 0.9Vp-p (REC/P.B)
2	 4.8Vp-p (REC/P.B)	22	 1.2Vp-p (REC)
3	 1.0Vp-p (REC/P.B)	23	 0.25Vp-p (P.B)
5	 0.9Vp-p (REC)	26	 0.9Vp-p (P.B)
5	 1.2Vp-p (P.B)	28	 0.5Vp-p (P.B)
7, 8	 0.46Vp-p (REC) 0.5Vp-p (P.B)	30	 1.5Vp-p (P.B)
9	 0.66Vp-p (REC)	33	 0.26Vp-p (P.B)
10	 0.6Vp-p (REC)	35	 0.44Vp-p (P.B)
11, 12	 0.3Vp-p (REC) 0.34Vp-p (P.B)	37, 38	 0.9Vp-p (REC/P.B)
13	 1.0Vp-p (REC/P.B)	40	 2.3Vp-p (REC/P.B)
15	 0.9Vp-p (REC/P.B)	41	 0.5Vp-p (REC) 0.56Vp-p (P.B)
16	 0.7Vp-p (REC/P.B)		

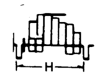
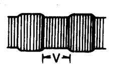
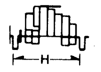
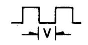
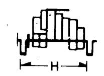
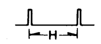
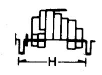
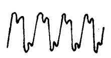
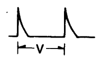
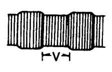
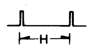
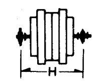
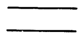
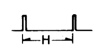
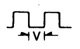
IC801 (VEFH04A)

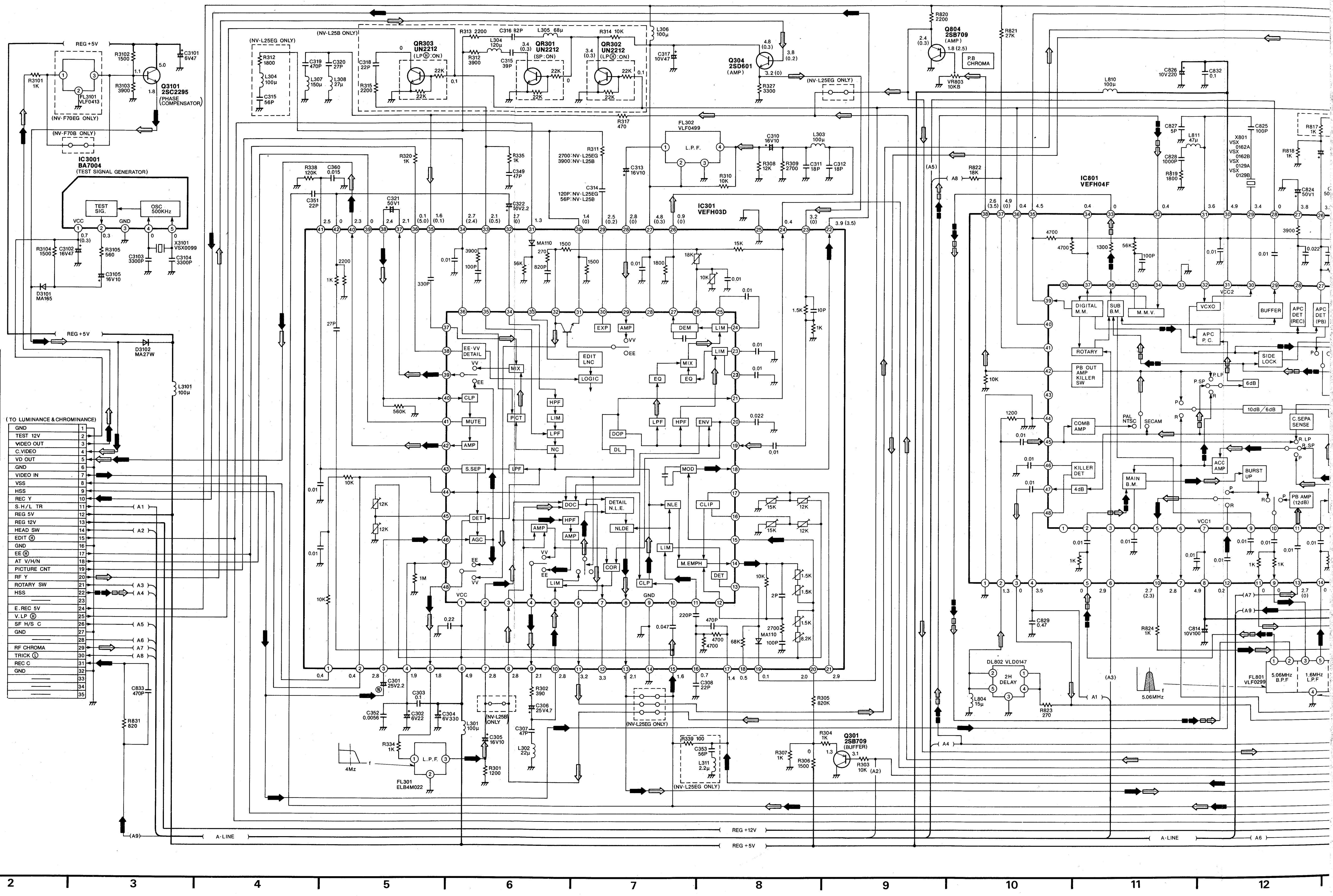
PIN NO.	WAVEFORM	PIN NO.	WAVEFORM
2	 0.16Vp-p (REC) 0.12Vp-p (P.B)	15	 0.48Vp-p (REC)
3	 0.9Vp-p (REC) 0.7Vp-p (P.B)	17	 0.44Vp-p (REC/P.B)
5	 0.2Vp-p (REC) 0.25Vp-p(P.B)	19	 0.3Vp-p (REC) 0.2Vp-p (P.B)
6	 5.0Vp-p (REC/P.B)	28	 0.8Vp-p (REC/P.B)
7	 0.6Vp-p (REC) 0.38Vp-p (P.B)	29	 1.1Vp-p (REC/P.B)
9	 0.36Vp-p (REC) 0.38Vp-p (P.B)	31	 0.76Vp-p (REC/P.B)
10	 1.1Vp-p (REC)	32	 4.8Vp-p (REC/P.B)
10	 0.74Vp-p (P.B)	33	 1.0Vp-p (REC/P.B)
11	 0.38Vp-p (REC/P.B)	34	 5.0Vp-p (REC/P.B)
12	 1.0Vp-p (REC/P.B)	35	 5.0Vp-p (REC/P.B)
13	 0.4Vp-p (P.B)	37	 0.38Vp-p (P.B)
14	 0.32Vp-p (REC/P.B)	38	 1.0Vp-p (P.B)

3-11. SUB MAIN (LUMINANCE & CHROMINANCE) SCHEMATIC DIAGRAM

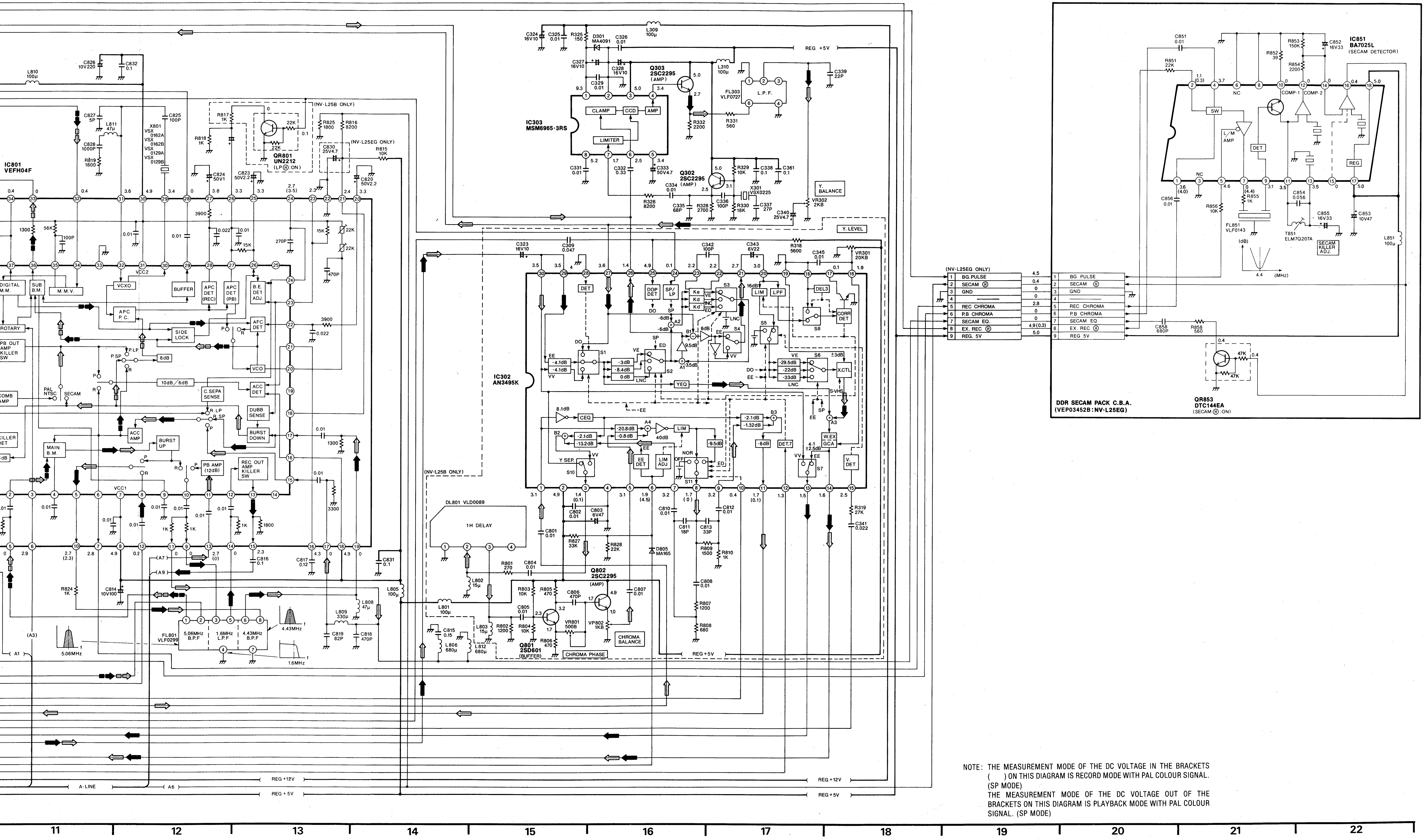
◀ MAIN SIGNAL PATH IN REC MODE ⇦ MAIN SIGNAL PATH IN PLAYBACK MODE ◀■ 5.06MHz PHASE ROTATIONAL SIGNA

WAVEFORM OF SUB MAIN C.B.A. PINS

PIN NO.	WAVEFORM	PIN NO.	WAVEFORM
3	 0.23Vp-p (REC/P.B)	20	 0.25Vp-p (P.B)
4	 0.12Vp-p (REC/P.B)	21	 5.0Vp-p (REC/P.B)
5	 2.3Vp-p (REC/P.B)	22	 4.6Vp-p (REC/P.B)
7	 1.0Vp-p (REC/P.B)	26	 0.8Vp-p (REC/P.B)
8	 2.0Vp-p (REC/P.B)	29	 0.4Vp-p (P.B)
9	 4.6Vp-p (REC/P.B)	31	 0.5Vp-p (REC)
10	 1.2Vp-p (REC)	33	 4.6Vp-p (REC/P.B)
14	 5.0Vp-p (REC/P.B)		


REG+5V
R3101 1K
R3102 1500
C3101 6V47
Q3101 2SC2295 (PHASE COMPENSATOR)
R3103 3900
FL3101 VLF0413
(NV-F70EG ONLY)
(NV-F70B ONLY)
IC3001 BA7004 (TEST SIGNAL GENERATOR)
TEST SIG.
OSC 500KHz
VCC
GND
X3101 VSX0099
R3104 1500
C3102 16V47
R3105 560
C3103 3300P
C3104 3300P
C3105 16V10
D3101 MA165
D3102 MA27W
L3101 100µ
(NV-L25EG ONLY)
(NV-L25B ONLY)
R312 1800
L304 100µ
C315 56P
C319 470P
C320 27P
L307 150µ
L308 27µ
C318 22P
R315 2200
QR303 UN2212 (LP Ⓗ :ON)
R313 2200
L304 120µ
R312 3900
C316 82P
C315 39P
QR301 UN2212 (SP:ON)
L305 68µ
R314 10K
QR302 UN2212 (LP Ⓗ :ON)
L306 100µ
C317 10V47
Q304 2SD601 (AMP)
R327 3300
R317 470
R320 1K
R335 1K
C349 47P
C322 50V2.2
R338 120K
C360 0.015
C351 22P
C321 50V1
R311 2700:NV-L25EG 3900:NV-L25B
C314 120P:NV-L25EG 56P:NV-L25B
C313 16V10
FL302 VLF0499
L.P.F.
C310 16V10
L303 100µ
R308 12K
R309 2700
C311 18P
C312 18P
R310 10K
IC301 VEFH03D
MA110
EXP
AMP
DEM
LIM
EE-VV DETAIL
MIX
EDIT LNC
LOGIC
EQ
CLP
MUTE
HPF
LPF
PCT
NC
DOP
DL
ENV
MOD
S.SEP
DOC
DETAIL N.L.E.
NLE
CLIP
DET
AGC
AMP
NLDE
COR
M.EMPH
VCC
GND
C301 25V2.2
C303 0.1
C352 0.0056
C302 6V22
C304 6V330
L301 100µ
C305 16V10
R301 1200
C307 47P
L302 22µ
R302 390
C306 25V4.7
C308 22P
R305 820K
R334 1K
FL301 ELB4M022
4Mz
R339 100
C353 56P
L311 2.2µ
(NV-L25EG ONLY)
R304 1K
Q301 2SB709 (BUFFER)
R307 1K
R306 1500
R303 10K
C833 470P
R831 820
(TO LUMINANCE & CHROMINANCE)
GND 1
TEST 12V 2
VIDEO OUT 3
C.VIDEO 4
VD OUT 5
GND 6
VIDEO IN 7
VSS 8
HSS 9
REC Y 10
S.H/L TR 11
REG 5V 12
REG 12V 13
HEAD SW 14
EDIT Ⓗ 15
GND 16
EE Ⓗ 17
AT V/H/N 18
PICTURE CNT 19
RF Y 20
ROTARY SW 21
HSS 22
23
E.REC 5V 24
V.LP Ⓗ 25
SF H/S C 26
GND 27
28
RF CHROMA 29
TRICK Ⓛ 30
REC C 31
GND 32
33
34
35
A-LINE
REG+12V
REG+5V
R820 2200
Q804 2SB709 (AMP)
P.B CHROMA
VR803 10KB
R821 27K
R822 18K
L810 100µ
C826 10V220
C832 0.1
C827 5P
L811 47µ
C828 1000P
R819 1800
X801 VSX 0162A VSX 0162B VSX 0129A VSX 0129B
C825 100P
R818 1K
R817 1K
C824 50V1
IC801 VEFH04F
DIGITAL M.M.
SUB B.M.
M.M.V.
VCXO
BUFFER
APC DET (REC)
APC DET (PB)
APC P.C.
ROTARY
SIDE LOCK
PB OUT AMP KILLER SW
6dB
10dB/6dB
COMB AMP
PAL NTSC
SECAM
C.SEPA SENSE
KILLER DET
4dB
ACC AMP
BURST UP
MAIN B.M.
PB AMP (12dB)
VCC1
VCC2
C829 0.47
R824 1K
C814 10V100
DL802 VLD0147
2H DELAY
L804 15µ
R823 270
5.06MHz
FL801 VLF0299
5.06MHz B.P.F
1.6MHz L.P.F
A-LINE
1 2 3 4 5 6 7 8 9 10 11 12
A B C D E F G

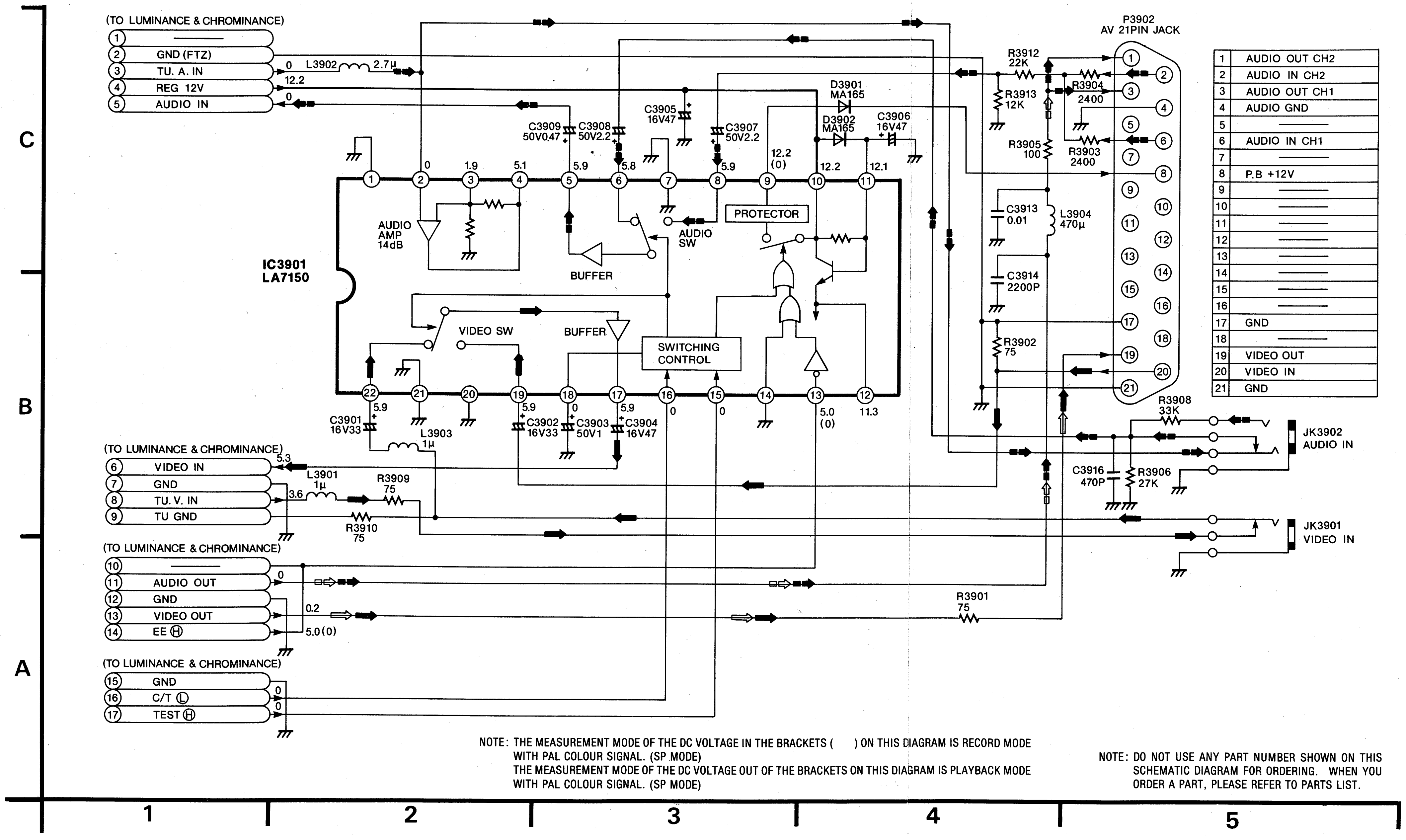
Hz PHASE ROTATIONAL SIGNAL IN REC MODE ⇦ 5.06MHz PHASE ROTATIONAL SIGNAL IN PLAYBACK MODE


IC801 VEFH04F
X801 VSX0162A VSX0162B VSX0129A VSX0129B
QR801 UN2212 (LP Ⓗ:ON)
(NV-L25B ONLY)
(NV-L25EG ONLY)
VCXO
BUFFER
APC DET (REC)
APC DET (PB)
B.E. DET ADJ.
APC P.C.
SIDE LOCK
AFC DET
VCO
ACC DET
C.SEPA SENSE
DUBB SENSE
BURST DOWN
ACC AMP
BURST UP
MAIN B.M.
PB AMP (12dB)
REC OUT AMP KILLER SW
DIGITAL M.M.
SUB B.M.
M.M.V.
ROTARY
PB OUT AMP KILLER SW
COMB AMP
PAL NTSC
SECAM
FL801 VLF0299
5.06MHz B.P.F
1.6MHz L.P.F
4.43MHz B.P.F
5.06MHz
4.43MHz
1.6MHz
IC303 MSM6965-3RS
CLAMP
CCD
AMP
LIMITER
Q303 2SC2295 (AMP)
Q302 2SC2295 (AMP)
FL303 VLF0727
L.P.F.
X301 VSX0225
Y. BALANCE
VR302 2KB
Y. LEVEL
VR301 20KB
REG +5V
IC302 AN3495K
DET
DOP DET
SP/LP
LIM
LPF
DEL3
CORR DET
CEQ
YEQ
LIM ADJ
EE DET
W.EX GCA
X.CTL
V. DET
DL801 VLD0089
1H DELAY
Q802 2SC2295 (AMP)
Q801 2SD601 (BUFFER)
VR801 500B
VP802 1KB
CHROMA BALANCE
CHROMA PHASE
REG +12V
A-LINE
A6
REG +5V
IC851 BA7025L (SECAM DETECTOR)
COMP-1
COMP-2
SW
L/M AMP
REG
FL851 VLF0143
T851 ELM7Q207A
SECAM KILLER ADJ.
QR853 DTC144EA (SECAM Ⓗ:ON)
DDR SECAM PACK C.B.A. (VEP03452B:NV-L25EG)
1 BG.PULSE
2 SECAM Ⓗ
3 GND
5 REC CHROMA
6 P.B CHROMA
7 SECAM EQ.
8 EX. REC Ⓗ
9 REG. 5V
11
12
13
14
15
16
17
18
19
20
21
22

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL. (SP MODE)
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL. (SP MODE)

3-12. INPUT/OUTPUT PACK SCHEMATIC DIAGRAM (NV-L25EG)

◀■ VIDEO MAIN SIGNAL PATH IN REC MODE
◁□ VIDEO MAIN SIGNAL PATH IN PLAYBACK MODE
◀■■ AUDIO MAIN SIGNAL PATH IN REC MODE
◁□□ AUDIO MAIN SIGNAL PATH IN PLAYBACK MODE

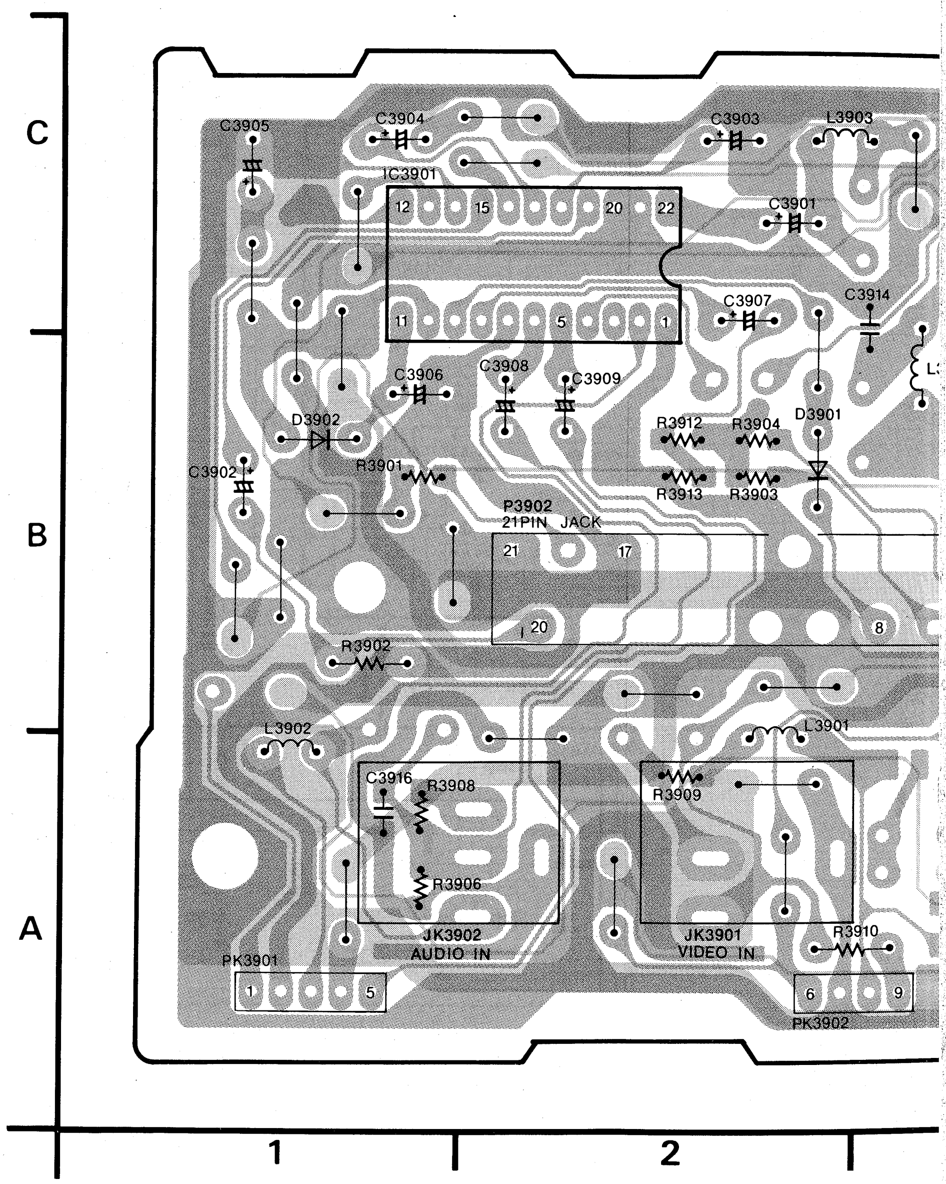

(TO LUMINANCE & CHROMINANCE)
① ———
② GND (FTZ)
③ TU. A. IN
④ REG 12V
⑤ AUDIO IN
L3902 2.7µ
12.2
P3902
AV 21PIN JACK
R3912 22K
R3913 12K
R3904 2400
R3905 100
R3903 2400
D3901 MA165
D3902 MA165
C3906 16V47
C3905 16V47
C3909 50V0.47
C3908 50V2.2
C3907 50V2.2
12.2 (0)
12.1
AUDIO AMP 14dB
AUDIO SW
PROTECTOR
BUFFER
IC3901
LA7150
VIDEO SW
BUFFER
SWITCHING CONTROL
C3913 0.01
L3904 470µ
C3914 2200P
R3902 75
C3901 16V33
C3902 16V33
C3903 50V1
C3904 16V47
L3903 1µ
5.9
5.8
5.1
1.9
5.0 (0)
11.3
(TO LUMINANCE & CHROMINANCE)
⑥ VIDEO IN
⑦ GND
⑧ TU. V. IN
⑨ TU GND
L3901 1µ
3.6
5.3
R3909 75
R3910 75
R3908 33K
C3916 470P
R3906 27K
JK3902 AUDIO IN
JK3901 VIDEO IN
(TO LUMINANCE & CHROMINANCE)
⑩ ———
⑪ AUDIO OUT
⑫ GND
⑬ VIDEO OUT
⑭ EE Ⓗ
0.2
5.0(0)
R3901 75
(TO LUMINANCE & CHROMINANCE)
⑮ GND
⑯ C/T Ⓛ
⑰ TEST Ⓗ
C
B
A
1
2
3
4
5

1	AUDIO OUT CH2
2	AUDIO IN CH2
3	AUDIO OUT CH1
4	AUDIO GND
5	———
6	AUDIO IN CH1
7	———
8	P.B +12V
9	———
10	———
11	———
12	———
13	———
14	———
15	———
16	———
17	GND
18	———
19	VIDEO OUT
20	VIDEO IN
21	GND

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS (   ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL. (SP MODE)
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL. (SP MODE)

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

3-13. INPUT/OUTPUT PACK C.B.A. (VEP03594B

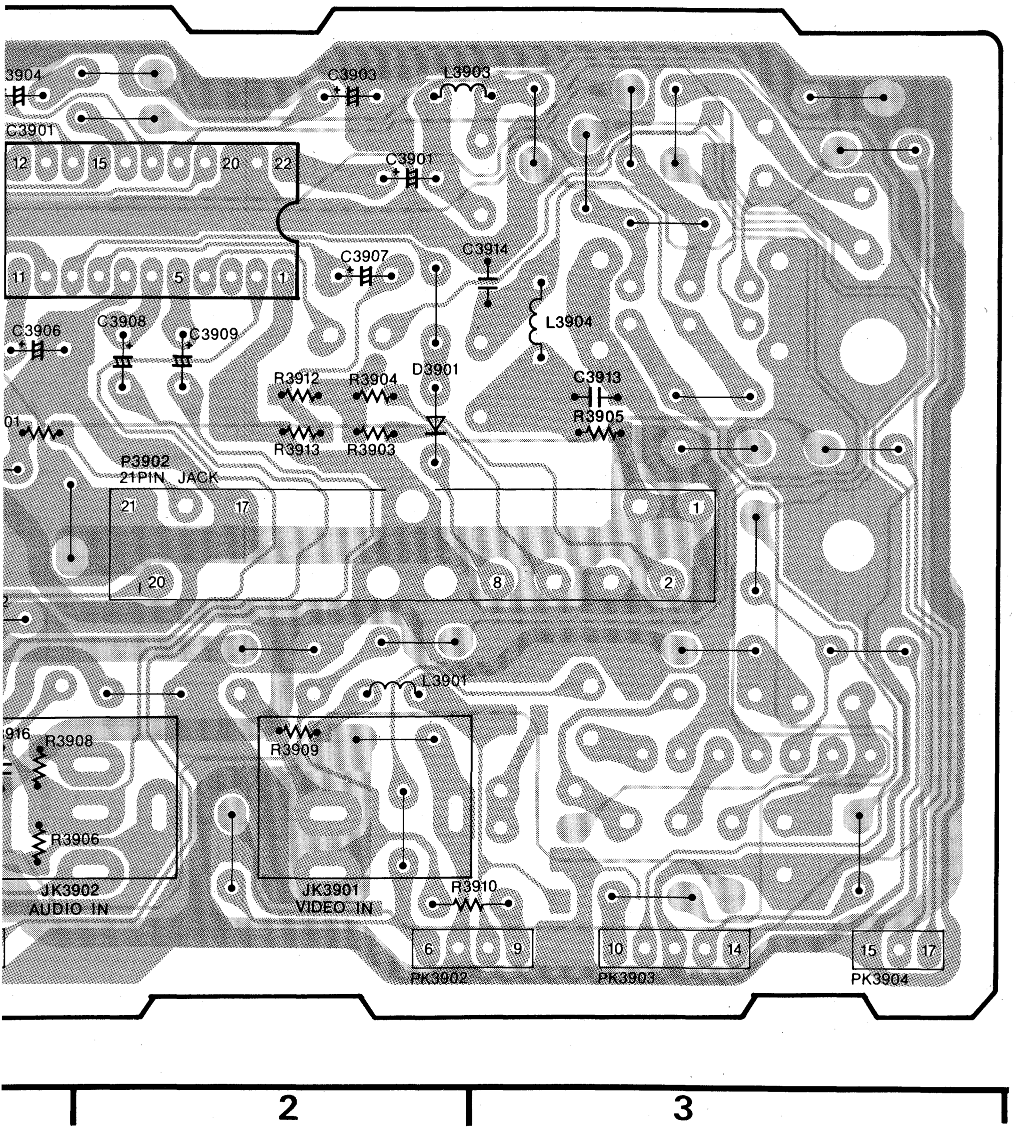

C3905
C3904
IC3901
C3903
L3903
C3901
12
15
20
22
11
5
1
C3907
C3914
C3906
C3908
C3909
D3902
R3912
R3904
D3901
C3902
R3901
R3913
R3903
P3902
21PIN JACK
21
17
20
8
R3902
L3902
L3901
C3916
R3908
R3909
R3906
JK3902
AUDIO IN
JK3901
VIDEO IN
R3910
PK3901
PK3902
6
9
C
B
A
1
2

Back Page:
SUB MAIN Section

'UT PACK C.B.A. (VEP03594B: NV-L25EG)

INPUT/OUTPUT PACK C.B.A.	
Integrated Circuit	
IC3901	C-1
Connector	
P3902 PK3901 PK3902 PK3903 PK3904	B-2 A-1 A-2 A-3 A-4

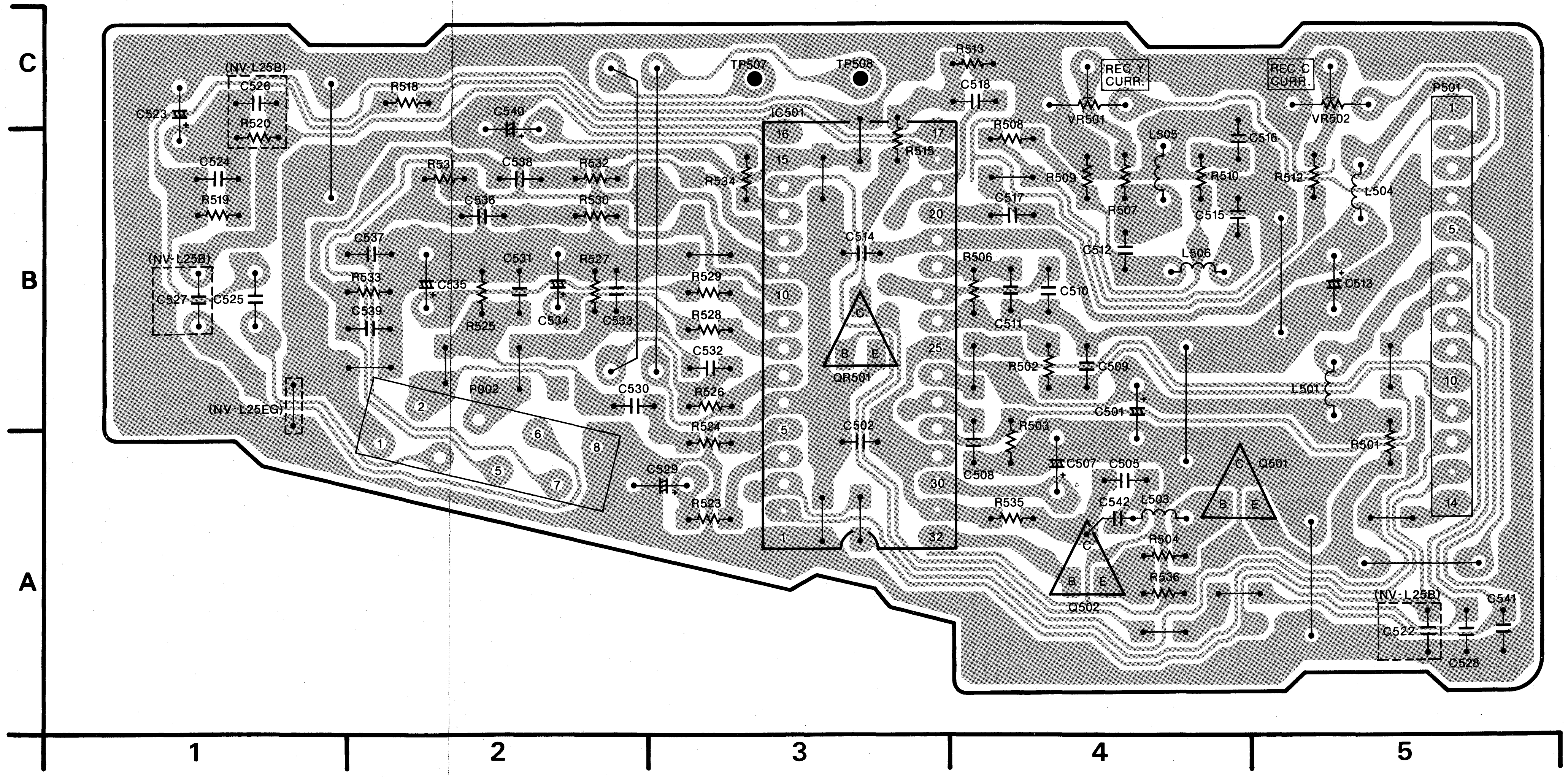
ADDRESS INFORMATION


C3903
L3903
C3901
C3901
C3907
C3914
L3904
C3906
C3908
C3909
R3912
R3904
D3901
C3913
R3905
R3913
R3903
P3902
21PIN JACK
L3901
R3908
R3909
R3906
JK3902
AUDIO IN
JK3901
VIDEO IN
R3910
PK3902
PK3903
PK3904
2
3

3-14. HEAD AMP C.B.A. (VEP05137D: NV-L25EG) (VEP05137A: NV-L25B)

HEAD AMP C.B.A.	
Transistor	
Q501 Q502	A-5 A-4
Transistor & Resistor	
QR501	B-3
Integrated Circuit	
IC501	C-3
Test Point	
TP507 TP508	C-3 C-3
Adjustment	
VR501 VR502	C-4 C-5
Connector	
P001 P501	B-2 C-5

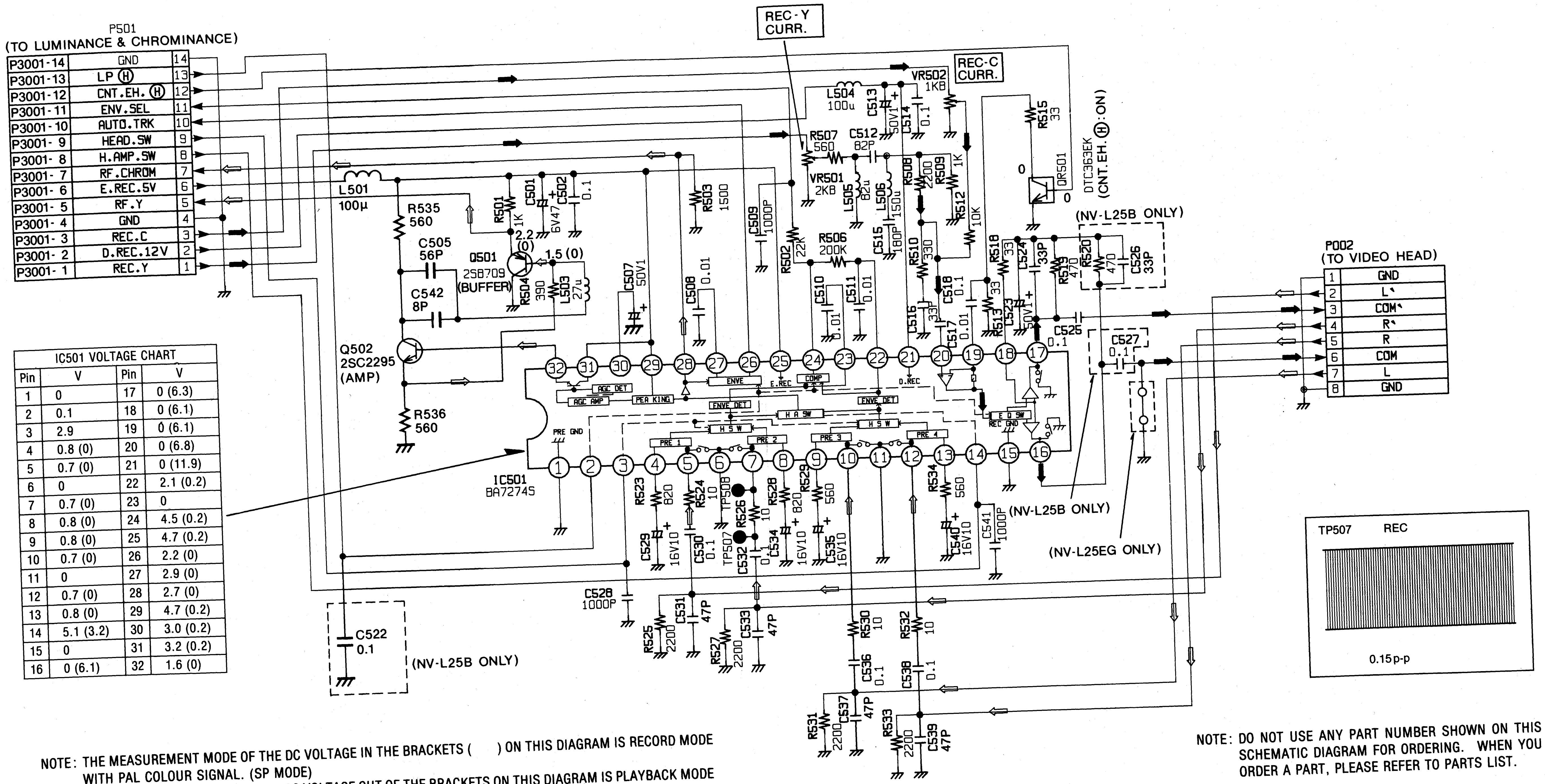
ADDRESS INFORMATION


C
B
A
1
2
3
4
5
(NV-L25B)
C526
R520
C523
R518
C540
TP507
TP508
R513
C518
IC501
R515
REC Y CURR.
VR501
REC C CURR.
VR502
P501
C524
R519
R531
C538
R532
R534
R508
L505
C516
R509
R510
R512
L504
C536
R530
C517
R507
C515
C537
C514
C512
L506
(NV-L25B)
R533
C535
C531
R527
R529
R506
C513
C527
C525
C539
R525
C534
C533
R528
C510
C511
QR501
R502
C509
P002
C532
R526
C530
(NV-L25EG)
C501
L501
R524
C502
R503
R501
C529
C508
C507
C505
Q501
R523
R535
C542
L503
R504
Q502
R536
(NV-L25B)
C522
C528
C541

3-15. HEAD AMP SCHEMATIC DIAGRAM

⬅ MAIN SIGNAL PATH IN REC MODE

⇦ MAIN SIGNAL PATH IN PLAYBACK MODE

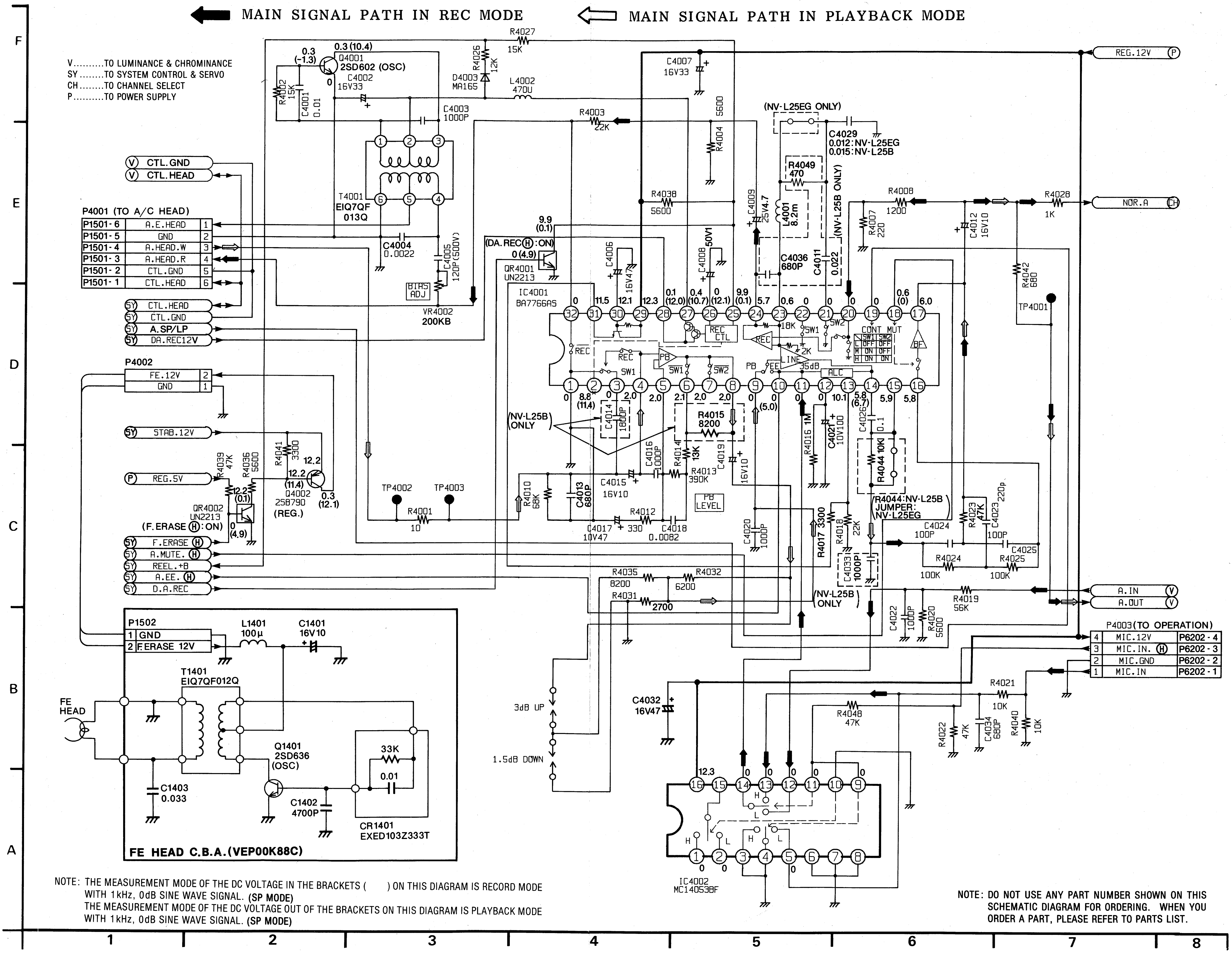

REC-Y CURR.
REC-C CURR.
P501 (TO LUMINANCE & CHROMINANCE)
P3001-14 GND 14
P3001-13 LP Ⓗ 13
P3001-12 CNT.EH. Ⓗ 12
P3001-11 ENV.SEL 11
P3001-10 AUTO.TRK 10
P3001-9 HEAD.SW 9
P3001-8 H.AMP.SW 8
P3001-7 RF.CHROM 7
P3001-6 E.REC.5V 6
P3001-5 RF.Y 5
P3001-4 GND 4
P3001-3 REC.C 3
P3001-2 D.REC.12V 2
P3001-1 REC.Y 1
L501 100μ
R535 560
C505 56P
Q501 2SB709 (BUFFER)
C542 8P
R504 390
L503 27μ
R501 1K
C501 6V47
C502 0.1
2.2
(0)
1.5 (0)
Q502 2SC2295 (AMP)
R536 560
C507 50V1
C508 0.01
R503 1500
C509 1000P
R502 22K
L504 100μ
C513 50V1
C514 0.1
VR502 1KB
R507 560
C512 82P
VR501 2KB
L505 82μ
L506 150μ
R506 200K
R508 2200
R509 1K
R512 10K
R510 330
C515 180P
C510 0.01
C511 0.01
C516 33P
C517 0.01
C518 0.1
R513 33
R518 33
C523 50V1
C524 33P
R515 33
QR501 DTC363EK (CNT.EH. Ⓗ:ON)
0
0
R519 470
R520 470
C526 33P
(NV-L25B ONLY)
C525 0.1
C527 0.1
P002 (TO VIDEO HEAD)
1 GND
2 L'
3 COM'
4 R'
5 R
6 COM
7 L
8 GND
AGC DET
AGC AMP
PEA KING
ENVE
E.REC
COMP
ENVE DET
ENVE DET
D.REC
H A SW
E Q SW
REC GND
H S W
H S W
PRE GND
PRE 1
PRE 2
PRE 3
PRE 4
IC501 BA7274S
R523 820
R524 10
TP508
R526 10
R528 820
R529 560
C529 16V10
C530 0.1
TP507
C532 0.1
C534 16V10
C535 16V10
R534 560
C540 16V10
C541 1000P
(NV-L25B ONLY)
(NV-L25EG ONLY)
C528 1000P
C531 47P
R525 2200
R527 2200
C533 47P
R530 10
R532 10
C536 0.1
C538 0.1
C537 47P
R531 2200
R533 2200
C539 47P
C522 0.1
(NV-L25B ONLY)
TP507 REC
0.15p-p

IC501 VOLTAGE CHART			
Pin	V	Pin	V
1	0	17	0 (6.3)
2	0.1	18	0 (6.1)
3	2.9	19	0 (6.1)
4	0.8 (0)	20	0 (6.8)
5	0.7 (0)	21	0 (11.9)
6	0	22	2.1 (0.2)
7	0.7 (0)	23	0
8	0.8 (0)	24	4.5 (0.2)
9	0.8 (0)	25	4.7 (0.2)
10	0.7 (0)	26	2.2 (0)
11	0	27	2.9 (0)
12	0.7 (0)	28	2.7 (0)
13	0.8 (0)	29	4.7 (0.2)
14	5.1 (3.2)	30	3.0 (0.2)
15	0	31	3.2 (0.2)
16	0 (6.1)	32	1.6 (0)

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS (   ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL. (SP MODE)
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL. (SP MODE)

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

3-16. AUDIO SCHEMATIC DIAGRAM

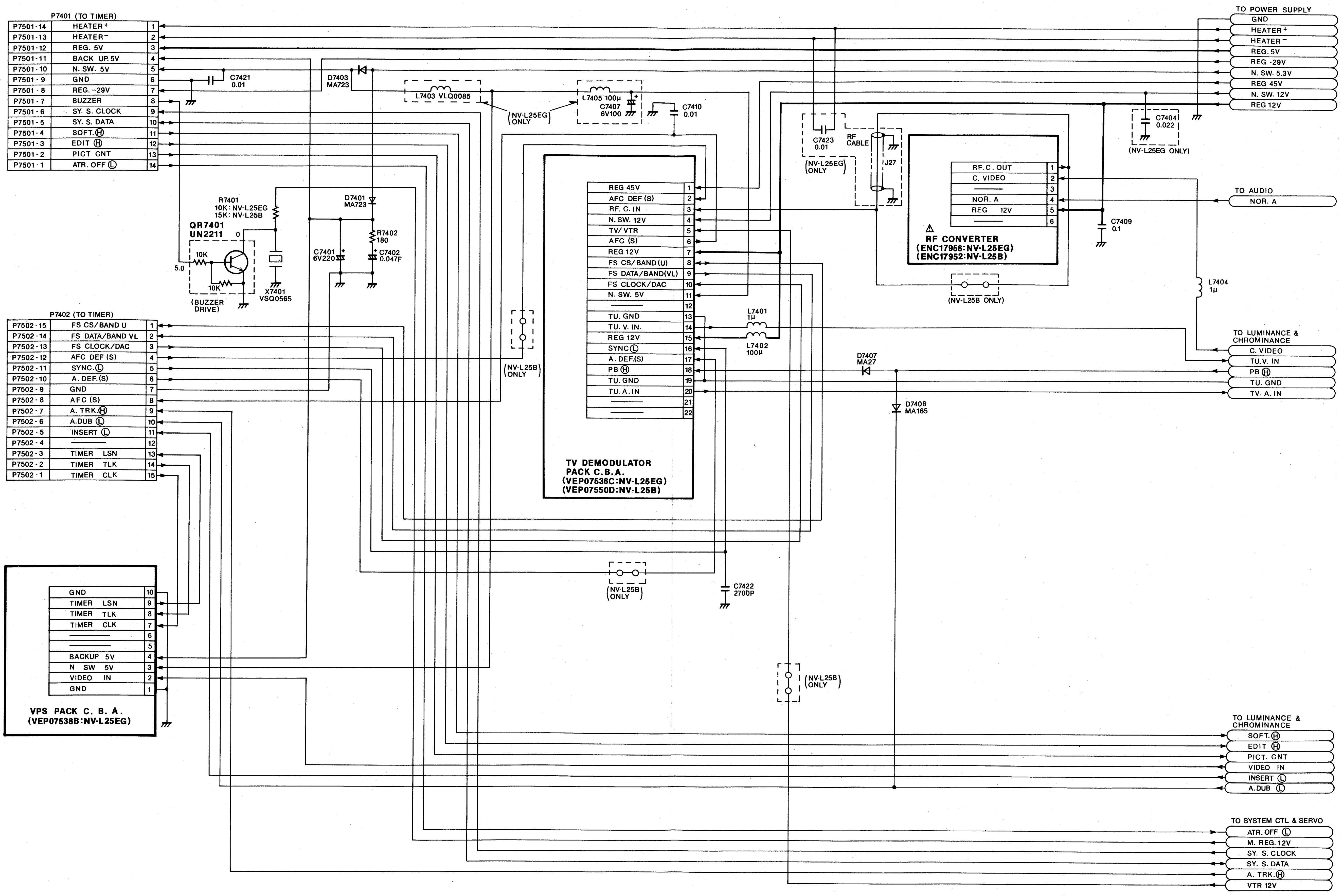

MAIN SIGNAL PATH IN REC MODE
MAIN SIGNAL PATH IN PLAYBACK MODE
V..........TO LUMINANCE & CHROMINANCE
SY........TO SYSTEM CONTROL & SERVO
CH........TO CHANNEL SELECT
P..........TO POWER SUPPLY
F
E
D
C
B
A
1
2
3
4
5
6
7
8
CTL.GND
CTL.HEAD
P4001 (TO A/C HEAD)
P1501-6 A.E.HEAD 1
P1501-5 GND 2
P1501-4 A.HEAD.W 3
P1501-3 A.HEAD.R 4
P1501-2 CTL.GND 5
P1501-1 CTL.HEAD 6
CTL.HEAD
CTL.GND
A.SP/LP
DA.REC12V
P4002
FE.12V 2
GND 1
STAB.12V
REG.5V
QR4002 UN2213
(F.ERASE Ⓗ:ON)
F.ERASE Ⓗ
A.MUTE. Ⓗ
REEL.+B
A.EE. Ⓗ
D.A.REC
0.3 (10.4)
0.3 (-1.3)
Q4001 2SD602 (OSC)
C4002 16V33
R4002 15K
C4001 0.01
C4003 1000P
T4001 EIQ7QF 013Q
C4004 0.0022
C4005 120P(500V)
BIAS ADJ
VR4002 200KB
R4027 15K
R4026 12K
D4003 MA165
L4002 470U
R4003 22K
R4004 5600
C4007 16V33
9.9 (0.1)
(DA.REC Ⓗ:ON)
0 (4.9)
QR4001 UN2213
IC4001 BA7766AS
C4006 16V47
C4008 50V1
R4038 5600
C4009 25V4.7
L4001 8.2m
(NV-L25EG ONLY)
C4029 0.012:NV-L25EG 0.015:NV-L25B
R4049 470
(NV-L25B ONLY)
C4036 680P
C4011 0.022
R4008 1200
R4007 220
C4012 16V10
R4028 1K
R4042 680
TP4001
REG.12V
NOR.A
REC CTL
REC SW1 SW2 PB LINE ALC 35dB 18K 2K
CONT MUT
BF
R4041 3300
R4039 47K
R4036 5600
Q4002 2SB790 (REG.)
12.2 (11.4) 12.2 (0.1) 0.3 (12.1) 0 (4.9)
TP4002 TP4003
R4001 10
(NV-L25B ONLY)
C4014 180P
R4010 68K
C4013 680P
C4015 16V10
C4016 1000P
R4014 13K
R4015 8200
R4013 390K
C4019 16V10
PB LEVEL
R4012 330
C4017 10V47
C4018 0.0082
C4020 1000P
R4016 1M
C4021 10V100
C4026 0.1
R4044 10K
R4044:NV-L25B JUMPER: NV-L25EG
R4017 3300
R4018 22K
C4033 1000P
(NV-L25B ONLY)
C4024 100P
R4023 47K
C4023 220p
C4025 100P
R4024 100K
R4025 100K
R4019 56K
A.IN
A.OUT
C4022 100P
R4020 5600
R4035 8200
R4032 6200
R4031 2700
3dB UP
1.5dB DOWN
C4032 16V47
P4003 (TO OPERATION)
4 MIC.12V P6202-4
3 MIC.IN. Ⓗ P6202-3
2 MIC.GND P6202-2
1 MIC.IN P6202-1
R4021 10K
R4048 47K
R4022 47K
C4034 680P
R4040 10K
IC4002 MC14053BF
P1502
1 GND
2 FERASE 12V
L1401 100μ
C1401 16V10
T1401 EIQ7QF012Q
FE HEAD
Q1401 2SD636 (OSC)
33K
0.01
C1403 0.033
C1402 4700P
CR1401 EXED103Z333T
FE HEAD C.B.A.(VEP00K88C)

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE WITH 1kHz, 0dB SINE WAVE SIGNAL. (SP MODE)
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH 1kHz, 0dB SINE WAVE SIGNAL. (SP MODE)

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

**Back Page:
HEAD AMP Section**

3-17. CHANNEL SELECT SCHEMATIC DIAGRAM


P7401 (TO TIMER)
P7501-14 HEATER+ 1
P7501-13 HEATER− 2
P7501-12 REG. 5V 3
P7501-11 BACK UP. 5V 4
P7501-10 N. SW. 5V 5
P7501-9 GND 6
P7501-8 REG. −29V 7
P7501-7 BUZZER 8
P7501-6 SY. S. CLOCK 9
P7501-5 SY. S. DATA 10
P7501-4 SOFT.Ⓗ 11
P7501-3 EDIT Ⓗ 12
P7501-2 PICT CNT 13
P7501-1 ATR. OFF Ⓛ 14
C7421 0.01
D7403 MA723
L7403 VLQ0085
(NV-L25EG) ONLY
L7405 100µ
C7407 6V100
C7410 0.01
C7423 0.01
(NV-L25EG) ONLY
RF CABLE
J27
C7404 0.022
(NV-L25EG ONLY)
TO POWER SUPPLY
GND
HEATER+
HEATER−
REG. 5V
REG -29V
N. SW. 5.3V
REG 45V
N. SW. 12V
REG 12V
R7401 10K: NV-L25EG 15K: NV-L25B
QR7401 UN2211
0
10K
5.0
10K
(BUZZER DRIVE)
X7401 VSQ0565
D7401 MA723
C7401 6V220
R7402 180
C7402 0.047F
REG 45V 1
AFC DEF (S) 2
RF. C. IN 3
N. SW. 12V 4
TV/ VTR 5
AFC (S) 6
REG 12V 7
FS CS/ BAND(U) 8
FS DATA/BAND(VL) 9
FS CLOCK/DAC 10
N. SW. 5V 11
12
TU. GND 13
TU. V. IN. 14
REG 12V 15
SYNCⓁ 16
A. DEF.(S) 17
PB Ⓗ 18
TU. GND 19
TU. A. IN 20
21
22
TV DEMODULATOR PACK C.B.A. (VEP07536C:NV-L25EG) (VEP07550D:NV-L25B)
RF.C. OUT 1
C. VIDEO 2
3
NOR. A 4
REG 12V 5
6
RF CONVERTER (ENC17956:NV-L25EG) (ENC17952:NV-L25B)
C7409 0.1
(NV-L25B ONLY)
TO AUDIO
NOR. A
L7404 1µ
L7401 1µ
L7402 100µ
D7407 MA27
D7406 MA165
TO LUMINANCE & CHROMINANCE
C. VIDEO
TU.V. IN
PB Ⓗ
TU. GND
TV. A. IN
P7402 (TO TIMER)
P7502-15 FS CS/BAND U 1
P7502-14 FS DATA/BAND VL 2
P7502-13 FS CLOCK/DAC 3
P7502-12 AFC DEF (S) 4
P7502-11 SYNC.Ⓛ 5
P7502-10 A. DEF.(S) 6
P7502-9 GND 7
P7502-8 AFC (S) 8
P7502-7 A. TRK.Ⓗ 9
P7502-6 A.DUB Ⓛ 10
P7502-5 INSERT Ⓛ 11
P7502-4 12
P7502-3 TIMER LSN 13
P7502-2 TIMER TLK 14
P7502-1 TIMER CLK 15
(NV-L25B) ONLY
(NV-L25B) ONLY
C7422 2700P
GND 10
TIMER LSN 9
TIMER TLK 8
TIMER CLK 7
6
5
BACKUP 5V 4
N SW 5V 3
VIDEO IN 2
GND 1
VPS PACK C. B. A. (VEP07538B:NV-L25EG)
(NV-L25B) ONLY
TO LUMINANCE & CHROMINANCE
SOFT.Ⓗ
EDIT Ⓗ
PICT. CNT
VIDEO IN
INSERT Ⓛ
A.DUB Ⓛ
TO SYSTEM CTL & SERVO
ATR. OFF Ⓛ
M. REG. 12V
SY. S. CLOCK
SY. S. DATA
A. TRK.Ⓗ
VTR 12V
E
D
C
B
A
1
2
3
4
5
6
7
8

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

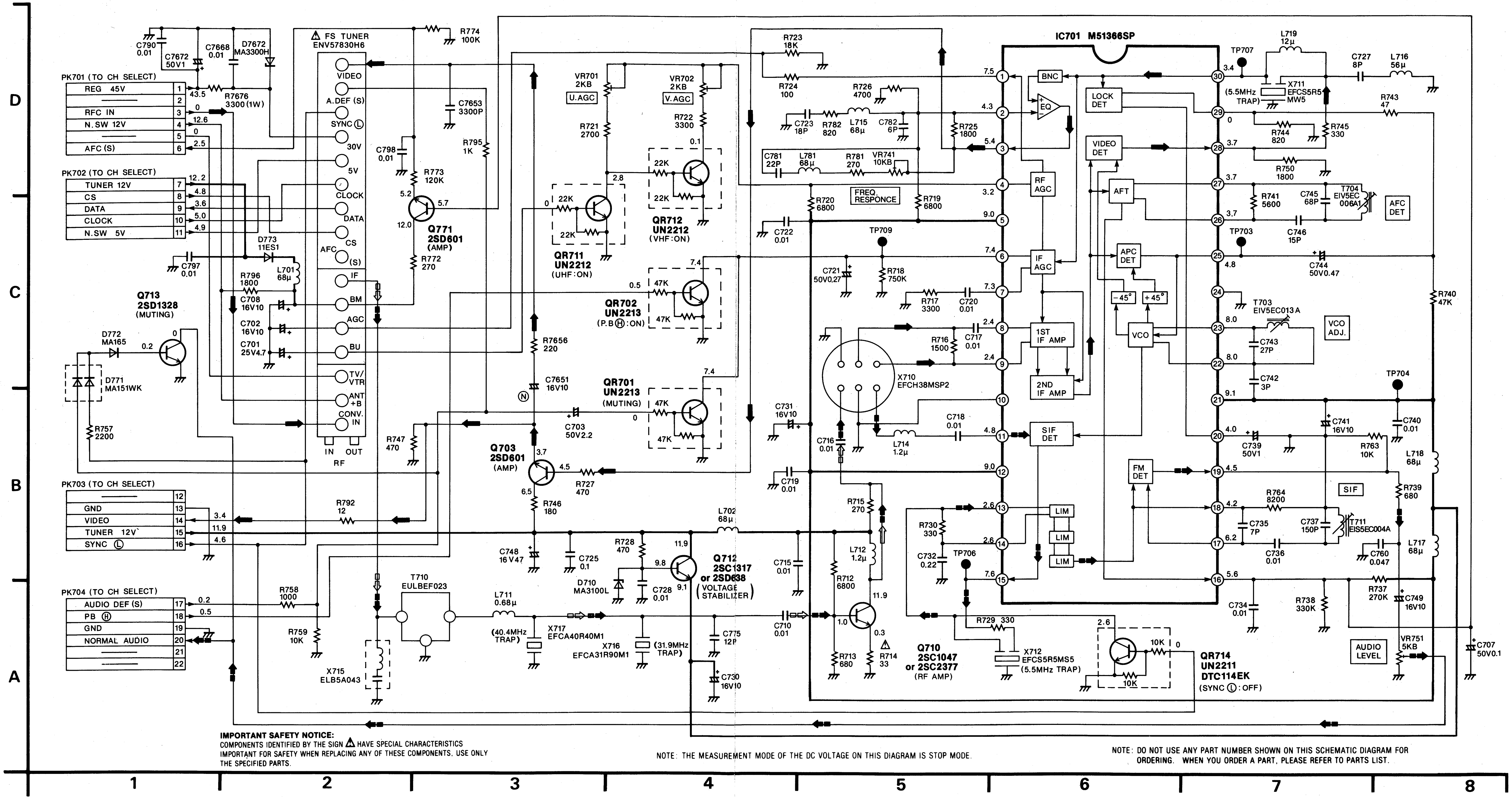
IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

3-18. TV DEMODULATOR PACK SCHEMATIC DIAGRAM (NV-L25EG)

VIDEO SIGNAL PATH

AUDIO SIGNAL PATH


PK701 (TO CH SELECT)
REG 45V
RFC IN
N.SW 12V
AFC (S)
PK702 (TO CH SELECT)
TUNER 12V
CS
DATA
CLOCK
N.SW 5V
PK703 (TO CH SELECT)
GND
VIDEO
TUNER 12V
SYNC Ⓛ
PK704 (TO CH SELECT)
AUDIO DEF (S)
PB Ⓗ
GND
NORMAL AUDIO
FS TUNER ENV57830H6
VIDEO
A.DEF (S)
SYNC Ⓛ
30V
5V
CLOCK
DATA
CS
AFC (S)
IF
BM
AGC
BU
TV/VTR
ANT +B
CONV. IN
IN OUT RF
Q713 2SD1328 (MUTING)
D772 MA165
D771 MA151WK
R757 2200
C790 0.01
C7672 50V1
C7668 0.01
D7672 MA3300H
R7676 3300 (1W)
C797 0.01
D773 11ES1
R796 1800
L701 68µ
C708 16V10
C702 16V10
C701 25V4.7
R774 100K
C7653 3300P
R795 1K
C798 0.01
R773 120K
Q771 2SD601 (AMP)
R772 270
R7656 220
C7651 16V10
R747 470
Q703 2SD601 (AMP)
R727 470
R746 180
R792 12
R758 1000
R759 10K
X715 ELB5A043
T710 EULBEF023
L711 0.68µ
(40.4MHz TRAP)
X717 EFCA40R40M1
X716 EFCA31R90M1
(31.9MHz TRAP)
C748 16V47
C725 0.1
R728 470
D710 MA3100L
C728 0.01
Q712 2SC1317 or 2SD638 (VOLTAGE STABILIZER)
L702 68µ
C775 12P
C730 16V10
VR701 2KB U.AGC
VR702 2KB V.AGC
R721 2700
R722 3300
QR711 UN2212 (UHF:ON)
QR712 UN2212 (VHF:ON)
QR702 UN2213 (P.B Ⓗ:ON)
QR701 UN2213 (MUTING)
C703 50V2.2
R723 18K
R724 100
R726 4700
C723 18P
R782 820
L715 68µ
C782 6P
C781 22P
L781 68µ
R781 270
VR741 10KB
R725 1800
R720 6800
FREQ. RESPONCE
R719 6800
C722 0.01
TP709
C721 50V0.27
R718 750K
R717 3300
C720 0.01
R716 1500
C717 0.01
X710 EFCH38MSP2
C731 16V10
C716 0.01
L714 1.2µ
C718 0.01
C719 0.01
C715 0.01
C710 0.01
R715 270
L712 1.2µ
R712 6800
R713 680
R714 33
Q710 2SC1047 or 2SC2377 (RF AMP)
R730 330
C732 0.22
TP706
R729 330
X712 EFCS5R5MS5 (5.5MHz TRAP)
QR714 UN2211 DTC114EK (SYNC Ⓛ:OFF)
IC701 M51366SP
BNC
EQ
RF AGC
IF AGC
1ST IF AMP
2ND IF AMP
SIF DET
LOCK DET
VIDEO DET
AFT
APC DET
-45°
+45°
VCO
FM DET
LIM
TP707
L719 12µ
C727 8P
L716 56µ
X711 EFCS5R5MW5 (5.5MHz TRAP)
R743 47
R744 820
R745 330
R750 1800
R741 5600
C745 68P
T704 EIV5EC006A
AFC DET
TP703
C746 15P
C744 50V0.47
T703 EIV5EC013A
C743 27P
VCO ADJ.
C742 3P
TP704
R740 47K
C741 16V10
C740 0.01
C739 50V1
R763 10K
L718 68µ
R764 8200
SIF
R739 680
C735 7P
C737 150P
T711 EIS5EC004A
C736 0.01
C760 0.047
L717 68µ
C734 0.01
R738 330K
R737 270K
C749 16V10
AUDIO LEVEL
VR751 5KB
C707 50V0.1
D
C
B
A
1
2
3
4
5
6
7
8

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED BY THE SIGN ⚠ HAVE SPECIAL CHARACTERISTICS
IMPORTANT FOR SAFETY WHEN REPLACING ANY OF THESE COMPONENTS. USE ONLY
THE SPECIFIED PARTS.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

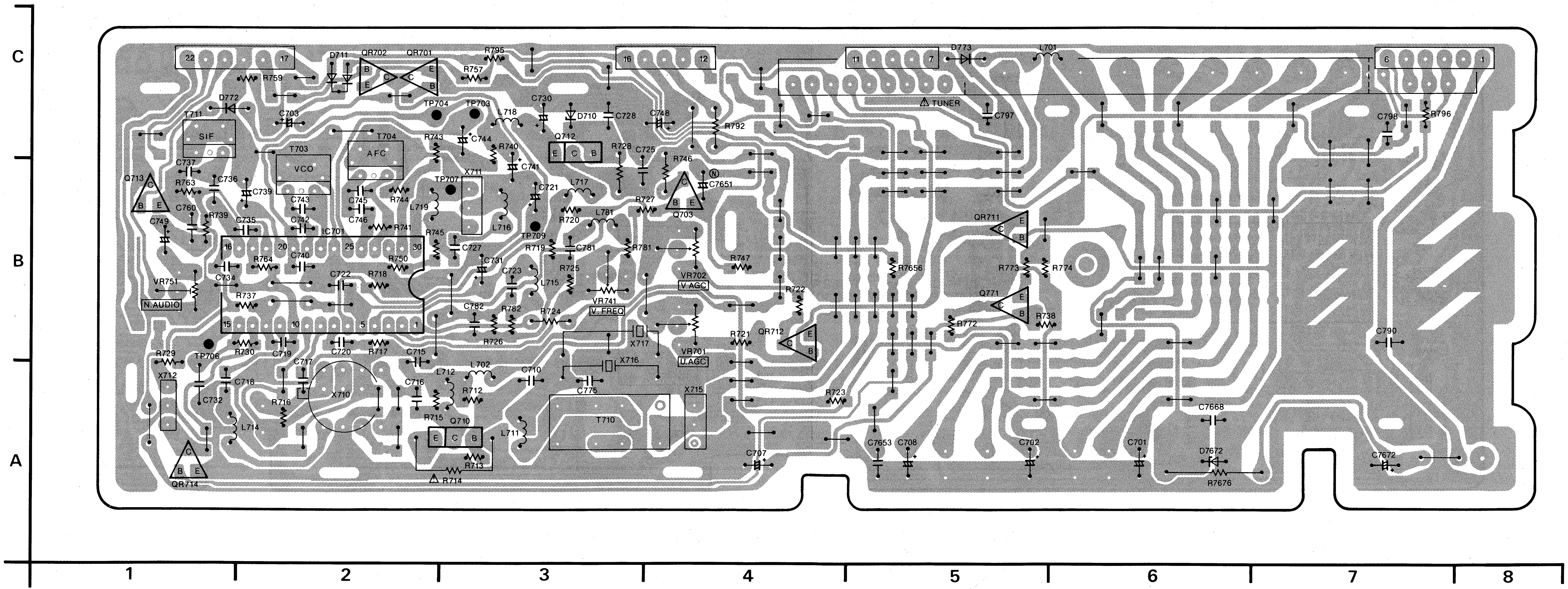
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

Back Page:
CHANNEL SELECT Section

3-19. TV DEMODULATOR PACK C.B.A. (VEP07536C: NV-L25EG)

TV DEMODULATOR PACK C.B.A.			
Transistor		**Test Point**	
Q703	B-4	TP703	C-3
Q710	A-3	TP704	C-2
Q712	C-3	TP706	B-1
Q713	B-1	TP707	B-3
Q771	B-5	TP709	B-3
Transistor & Resistor		**Adjustment**	
QR701	C-2	T703	B-2
QR702	C-2	T704	C-2
QR711	B-5	T710	A-3
QR712	B-4	T711	C-1
QR714	A-1	VR701	B-4
Integrated Circuit		VR702	B-4
		VR741	B-3
IC701	B-2	VR751	B-1

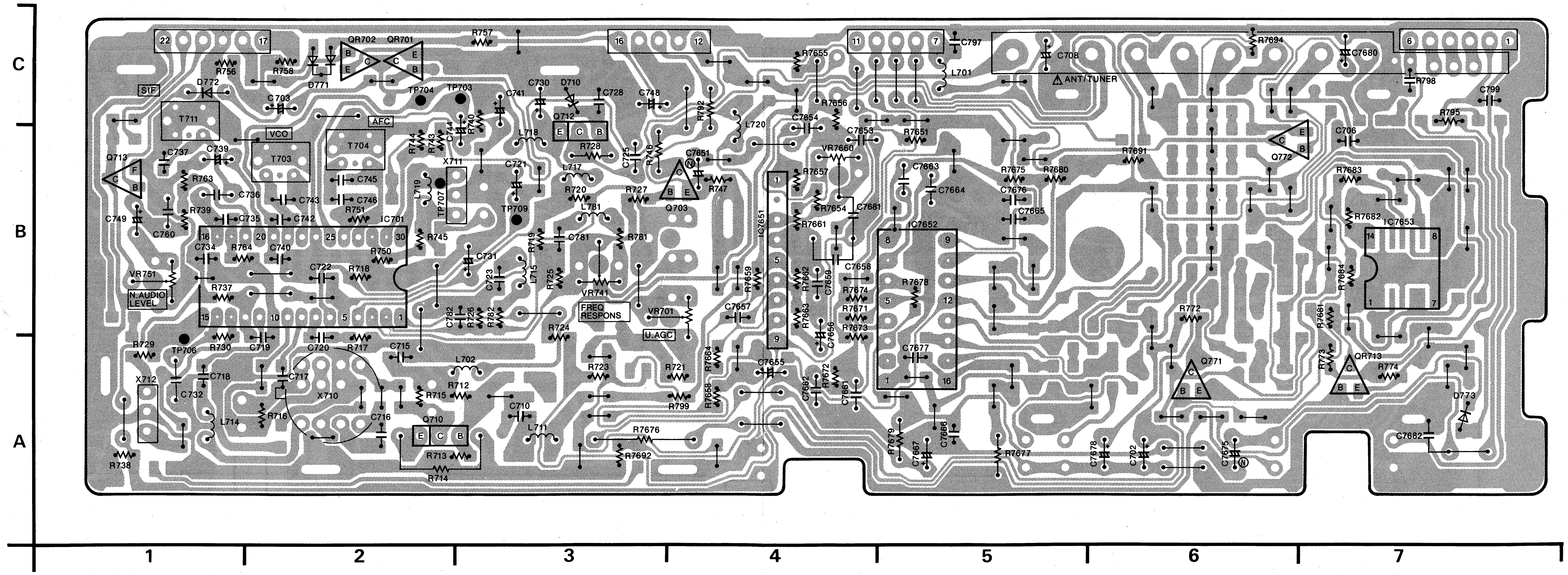
ADDRESS INFORMATION


C
B
A
1
2
3
4
5
6
7
8
T711
SIF
Q713
D772
C703
R759
D711
QR702
QR701
R795
R757
TP704
TP703
C730
D710
C728
C748
R792
T703
VCO
T704
AFC
R743
C744
L718
R740
C741
Q712
R728
C725
R746
C7651
Q703
R727
L781
R720
C721
L717
TP707
X711
L716
TP709
R719
C781
R781
R725
VR741
V.FREQ
VR702
V.AGC
R747
R737
C737
R763
C736
C739
C743
C745
C746
R744
R741
L719
R745
C727
C731
C723
L715
C760
R739
C735
C742
IC701
C749
R764
C740
R750
C722
R718
C734
VR751
N.AUDIO
R729
TP706
R730
C719
C720
R717
C715
C782
R782
R724
R726
X717
X716
VR701
U.AGC
X712
C732
C718
C717
R716
X710
L714
C716
L712
L702
R712
C710
C775
T710
X715
L711
Q710
R715
R713
R714
QR714
R721
QR712
R722
R723
C707
C7653
C708
C702
C701
C7668
D7672
R7676
C7672
C790
QR711
R773
R774
Q771
R738
R772
R7656
D773
L701
TUNER
C797
C798
R796
22
17
16
12
11
7
6
1
20
25
30
15
10
5
B
C
E

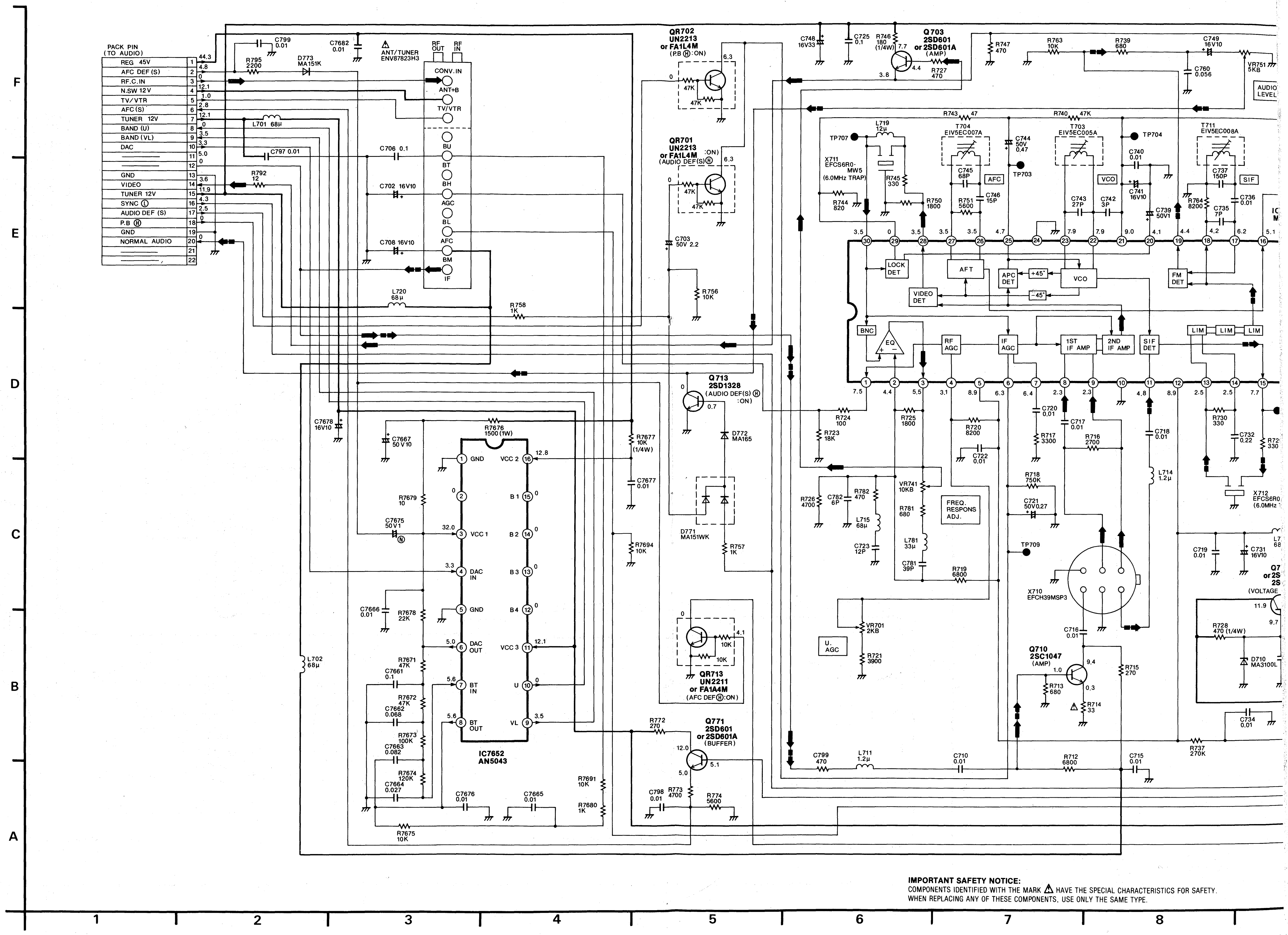
3-20. TV DEMODULATOR PACK C.B.A. (VEP07550D: NV-L25B)

TV DEMODULATOR PACK C.B.A.			
Transistor		**Test Point**	
Q703	B-4	TP703	C-3
Q710	A-2	TP704	C-2
Q712	B-3	TP707	B-2
Q713	B-1	TP709	B-3
Q771	A-6	**Adjustment**	
Q772	B-6	VR701	B-3
Transistor & Resistor		VR741	B-3
QR701	C-2	VR751	B-1
QR702	C-2	T703	B-2
QR713	A-7	T704	B-2
Integrated Circuit		T711	C-1
IC701	B-2		
IC7651	B-4		
IC7652	B-5		
IC7653	B-7		

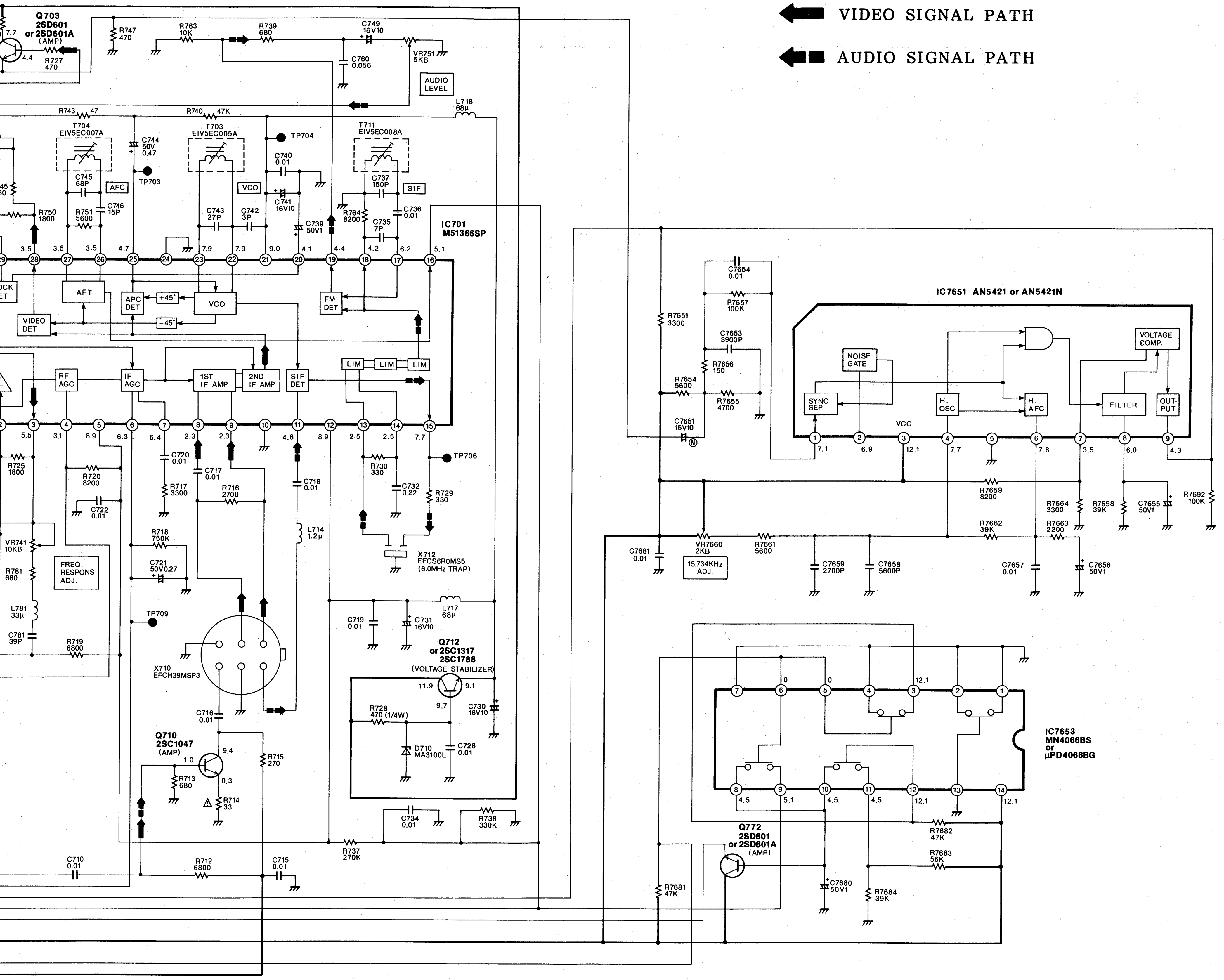
ADDRESS INFORMATION


C
B
A
1
2
3
4
5
6
7
22
17
16
12
11
7
6
1
SIF
VCO
AFC
T711
T703
T704
Q713
QR702
QR701
D772
D771
D710
R756
R758
R757
C703
TP704
TP703
C741
C730
C728
C748
Q712
R728
C737
C739
R763
C736
C743
C745
C746
R751
IC701
X711
L719
TP707
TP709
L718
C721
L717
R720
L781
R727
C725
R746
R792
L720
C7651
Q703
R747
C749
C760
R739
C735
C742
C734
R764
C740
R745
R750
VR751
N.AUDIO LEVEL
R737
C722
R718
C731
C723
L715
R719
R725
C781
R781
VR741
FREQ RESPONS
VR701
U.AGC
C782
R726
R782
R724
R729
TP706
R730
C719
C720
R717
C715
L702
X712
C718
C732
C717
X710
R716
L714
C716
R715
R712
C710
Q710
L711
R713
R714
R738
R723
R721
R799
R7664
R7658
R7676
R7692
R7655
R7656
C7654
C7653
R7651
VR7660
R7657
R7654
C7681
R7661
IC7651
C7658
R7659
R7662
C7659
R7674
R7671
R7673
R7663
C7656
C7657
C7655
C7662
R7672
C7661
C797
L701
C7663
C7664
IC7652
R7678
C7677
R7679
C7667
C7666
R7677
C708
ANT/TUNER
R7675
R7680
C7676
C7665
R7691
R7694
C7680
R798
C799
R795
Q772
C706
R7683
R7682
IC7653
R7684
R7681
R772
Q771
R773
QR713
R774
D773
C7682
C7678
C702
C7675

3-21. TV DEMODULATOR PACK SCHEMATIC DIAGRAM (NV-L25B)


PACK PIN (TO AUDIO)
1 REG 45V
2 AFC DEF (S)
3 RF.C.IN
4 N.SW 12V
5 TV/VTR
6 AFC (S)
7 TUNER 12V
8 BAND (U)
9 BAND (VL)
10 DAC
13 GND
14 VIDEO
15 TUNER 12V
16 SYNC Ⓛ
17 AUDIO DEF (S)
18 P.B Ⓗ
19 GND
20 NORMAL AUDIO
ANT/TUNER ENV87823H3
RF OUT
RF IN
CONV.IN
ANT+B
TV/VTR
BU
BT
BH
AGC
BL
AFC
BM
IF
QR702 UN2213 or FA1L4M (P.B Ⓗ:ON)
QR701 UN2213 or FA1L4M (AUDIO DEF(S)Ⓗ:ON)
Q703 2SD601 or 2SD601A (AMP)
Q713 2SD1328 (AUDIO DEF(S) Ⓗ:ON)
QR713 UN2211 or FA1A4M (AFC DEFⒽ:ON)
Q771 2SD601 or 2SD601A (BUFFER)
Q710 2SC1047 (AMP)
IC7652 AN5043
GND
VCC 2
VCC 1
DAC IN
DAC OUT
VCC 3
BT IN
BT OUT
B 1
B 2
B 3
B 4
U
VL
D771 MA151WK
D772 MA165
D773 MA151K
D710 MA3100L
T704 EIV5EC007A
T703 EIV5EC005A
T711 EIV5EC008A
X711 EFCS6R0-MW5 (6.0MHz TRAP)
X712 EFCS6R0 (6.0MHz)
X710 EFCH39MSP3
TP707
TP703
TP704
TP709
AFC
VCO
SIF
AUDIO LEVEL
LOCK DET
AFT
APC DET
+45°
-45°
VCO
VIDEO DET
FM DET
BNC
EQ
RF AGC
IF AGC
1ST IF AMP
2ND IF AMP
SIF DET
LIM
U. AGC
FREQ. RESPONS ADJ.
VR741 10KB
VR701 2KB
VR751 5KB
(VOLTAGE
A
B
C
D
E
F
1
2
3
4
5
6
7
8

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.


VIDEO SIGNAL PATH
AUDIO SIGNAL PATH
Q703 2SD601 or 2SD601A (AMP)
IC701 M51366SP
T704 EIV5EC007A
T703 EIV5EC005A
T711 EIV5EC008A
AFC
VCO
SIF
AFT
APC DET
VCO
FM DET
VIDEO DET
RF AGC
IF AGC
1ST IF AMP
2ND IF AMP
SIF DET
LIM
AUDIO LEVEL
VR751 5KB
VR741 10KB
FREQ. RESPONS ADJ.
X710 EFCH39MSP3
X712 EFCS6R0MS5 (6.0MHz TRAP)
Q710 2SC1047 (AMP)
Q712 or 2SC1317 2SC1788 (VOLTAGE STABILIZER)
D710 MA3100L
TP703
TP704
TP706
TP709
IC7651 AN5421 or AN5421N
NOISE GATE
SYNC SEP
H. OSC
H. AFC
FILTER
VOLTAGE COMP.
OUT-PUT
VCC
VR7660 2KB
15.734KHz ADJ.
IC7653 MN4066BS or μPD4066BG
Q772 2SD601 or 2SD601A (AMP)
7
8
9
10
11
12
13

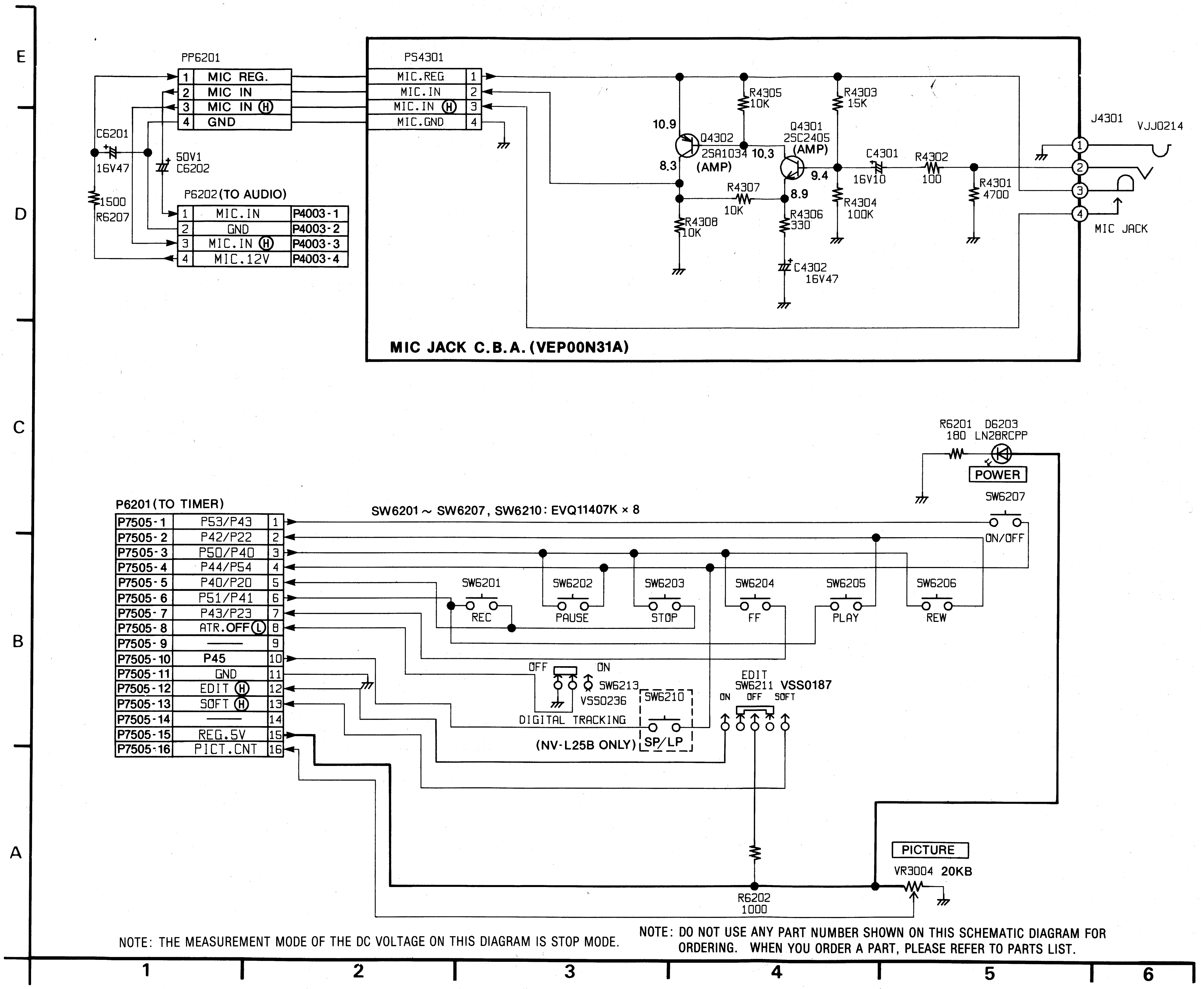
IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

Next Page:
OPERATION Section

3-22. OPERATION SCHEMATIC DIAGRAM



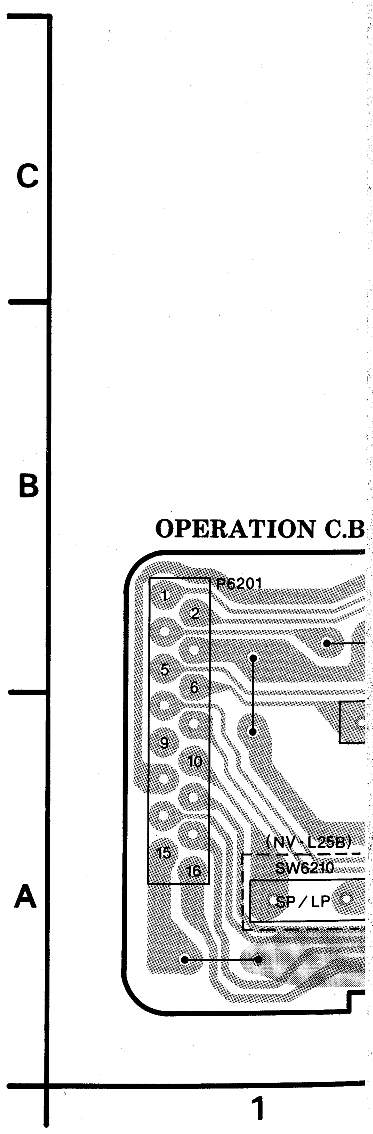
E
D
C
B
A
1
2
3
4
5
6
PP6201
1 MIC REG.
2 MIC IN
3 MIC IN Ⓗ
4 GND
C6201
16V47
1500
R6207
50V1
C6202
P6202(TO AUDIO)
1 MIC.IN P4003-1
2 GND P4003-2
3 MIC.IN Ⓗ P4003-3
4 MIC.12V P4003-4
PS4301
MIC.REG 1
MIC.IN 2
MIC.IN Ⓗ 3
MIC.GND 4
10.9
8.3
Q4302
2SA1034
(AMP)
10.3
R4305
10K
R4303
15K
Q4301
2SC2405
(AMP)
9.4
8.9
R4307
10K
R4308
10K
R4306
330
C4302
16V47
R4304
100K
C4301
16V10
R4302
100
R4301
4700
J4301
VJJ0214
MIC JACK
MIC JACK C.B.A. (VEP00N31A)
R6201 D6203
180 LN28RCPP
POWER
SW6207
ON/OFF
SW6201 ~ SW6207, SW6210: EVQ11407K × 8
P6201(TO TIMER)
P7505-1 P53/P43 1
P7505-2 P42/P22 2
P7505-3 P50/P40 3
P7505-4 P44/P54 4
P7505-5 P40/P20 5
P7505-6 P51/P41 6
P7505-7 P43/P23 7
P7505-8 ATR.OFF Ⓛ 8
P7505-9 ——— 9
P7505-10 P45 10
P7505-11 GND 11
P7505-12 EDIT Ⓗ 12
P7505-13 SOFT Ⓗ 13
P7505-14 ——— 14
P7505-15 REG.5V 15
P7505-16 PICT.CNT 16
SW6201
REC
SW6202
PAUSE
SW6203
STOP
SW6204
FF
SW6205
PLAY
SW6206
REW
OFF
ON
SW6213
VSS0236
DIGITAL TRACKING
SW6210
SP/LP
(NV-L25B ONLY)
EDIT
SW6211 VSS0187
ON OFF SOFT
PICTURE
VR3004 20KB
R6202
1000

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

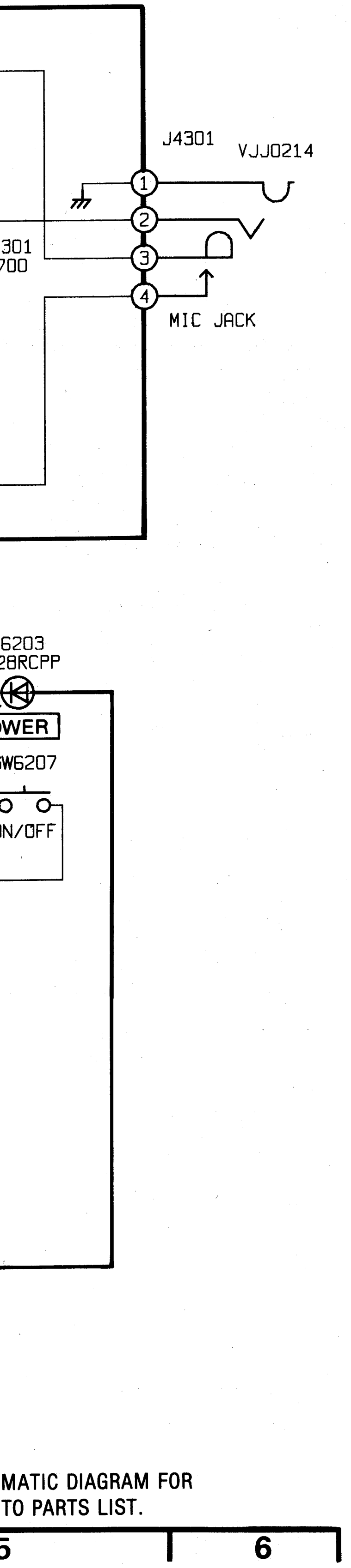
3-23. OPERATIO

OPERATION C.B



C
B
A
1
P6201
1
2
5
6
9
10
15
16
(NV-L25B)
SW6210
SP/LP

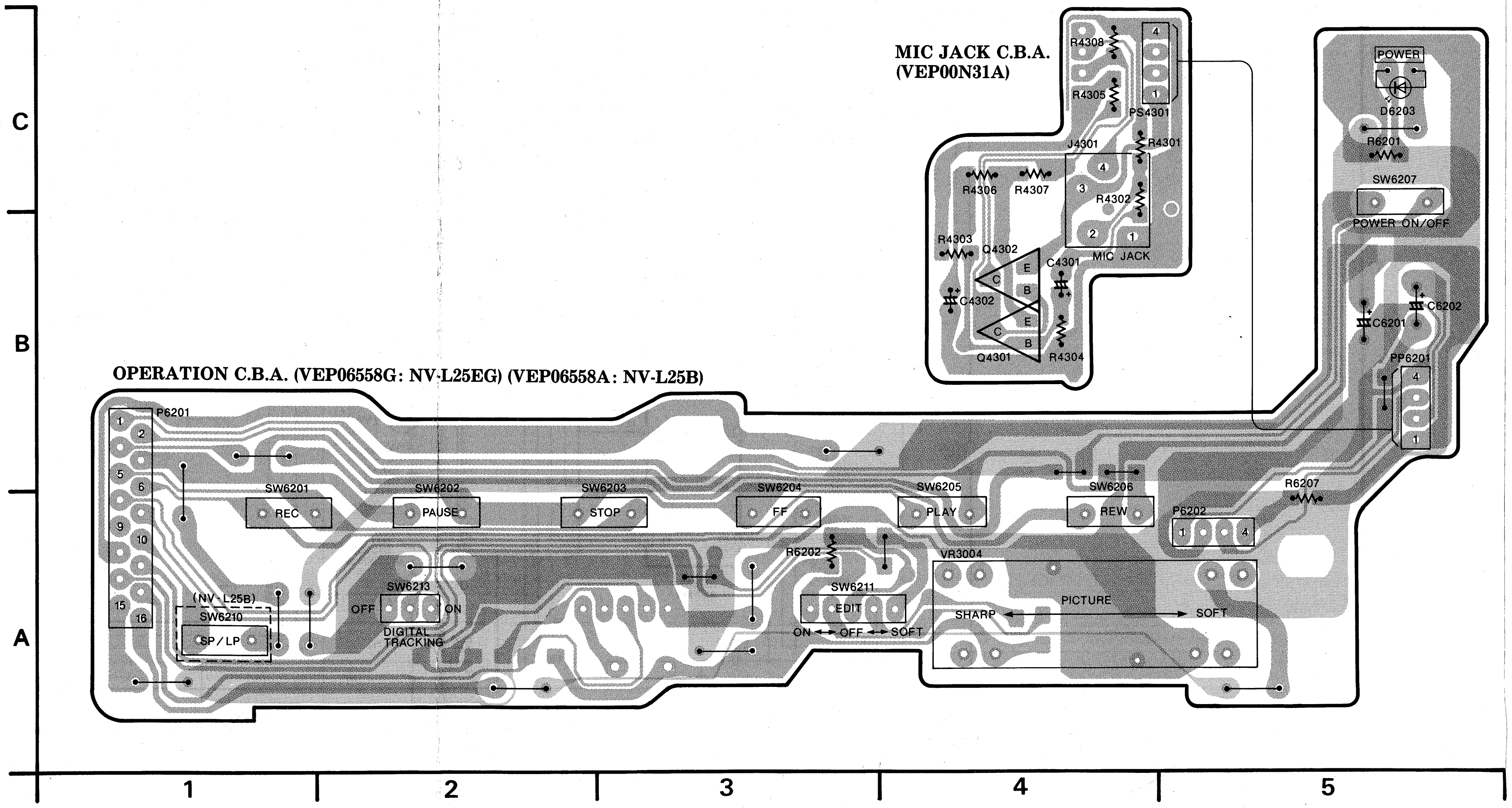
3-23. OPERATION C.B.A. (VEP06558G: NV-L25EG) (VEP06558A: NV-L25B)


J4301
VJJ0214
1
2
3
4
301
700
MIC JACK
6203
28RCPP
WER
SW6207
N/OFF
5
6

MATIC DIAGRAM FOR
TO PARTS LIST.

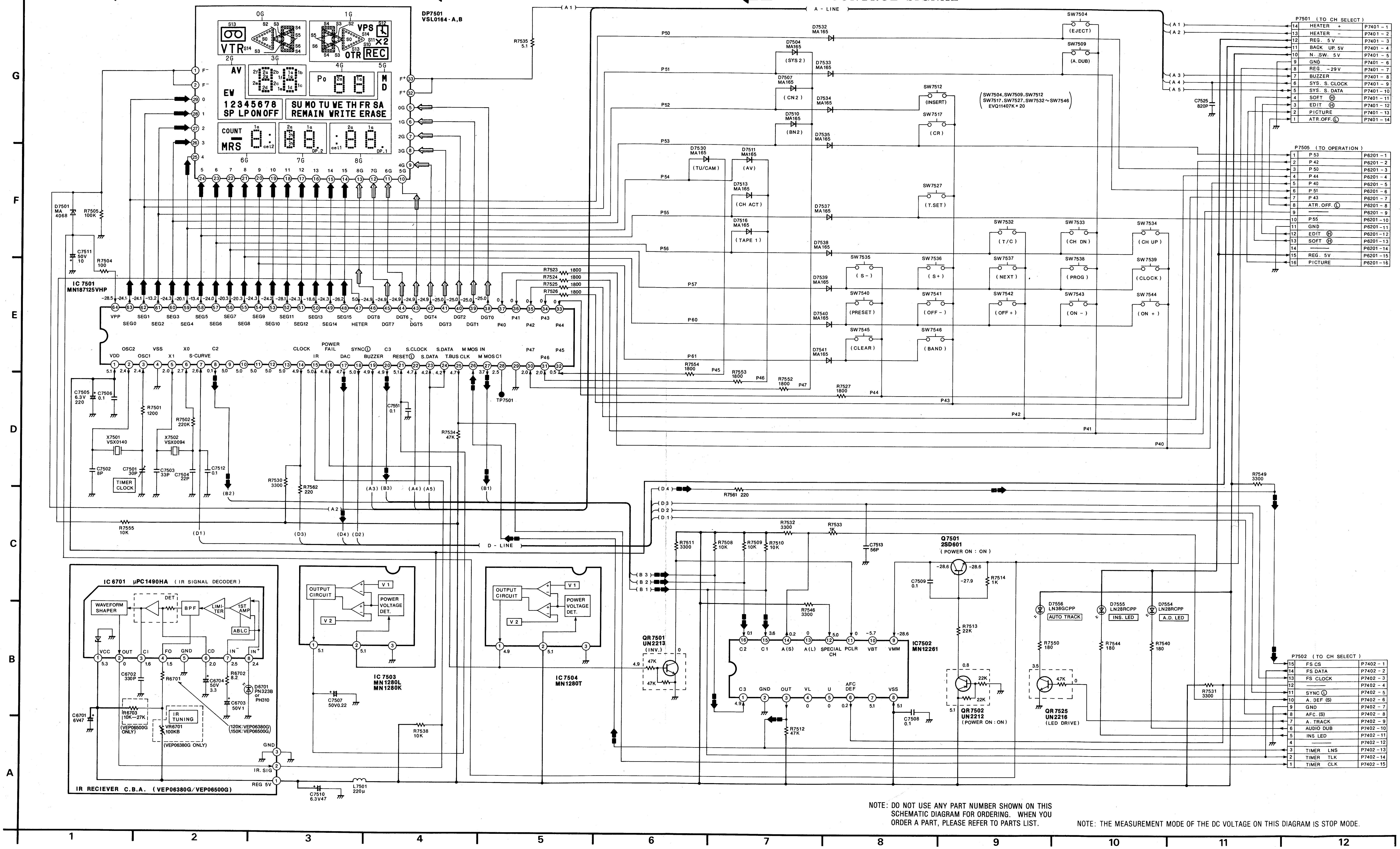
OPERATION C.B.A. & MIC JACK C.B.A.	
Transistor	
Q4301	B-4
Q4302	B-4
Adjustment	
VR3004	A-4
Connector	
P6201	B-1
P6202	A-5
PP6201	B-5
PS4301	C-4

ADDRESS INFORMATION


MIC JACK C.B.A.
(VEP00N31A)
OPERATION C.B.A. (VEP06558G: NV-L25EG) (VEP06558A: NV-L25B)
C
B
A
1
2
3
4
5
R4308
R4305
PS4301
J4301
R4301
R4306
R4307
R4302
R4303
Q4302
C4301
MIC JACK
C4302
Q4301
R4304
E
C
B
POWER
D6203
R6201
SW6207
POWER ON/OFF
C6201
C6202
PP6201
P6201
SW6201
REC
SW6202
PAUSE
SW6203
STOP
SW6204
FF
SW6205
PLAY
SW6206
REW
R6207
P6202
R6202
VR3004
SW6211
EDIT
ON ◄► OFF ◄► SOFT
SHARP
PICTURE
SOFT
SW6213
OFF
ON
DIGITAL TRACKING
(NV-L25B)
SW6210
SP/LP
15
16

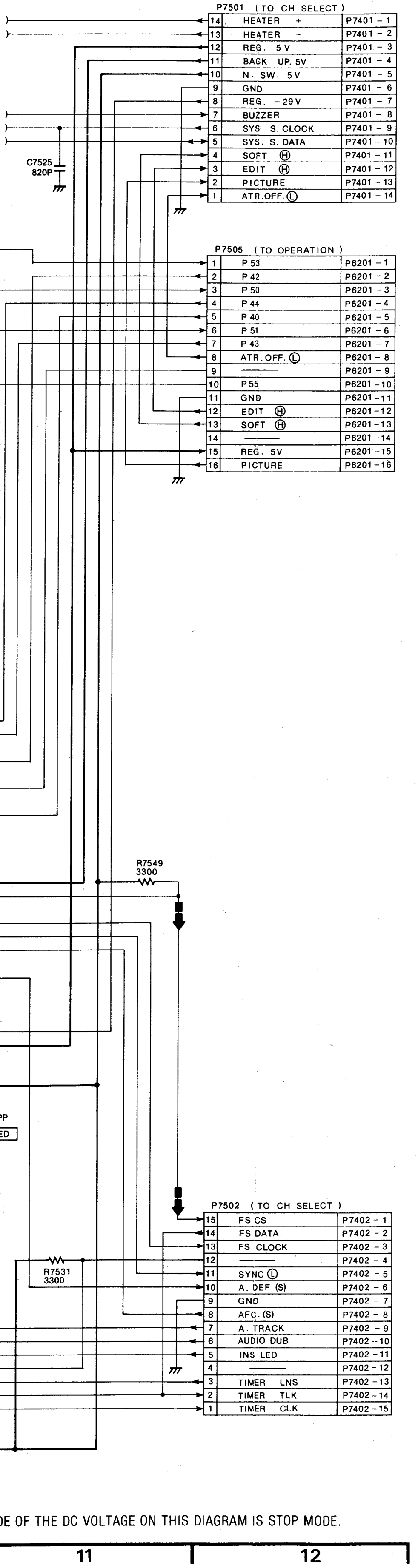
3-24. TIMER SCHEMATIC DIAGRAM (NV-L25EG)

SEGMENT CONTROL SIGNAL GRID CONTROL SIGNAL TUNE CONTROL SIGNAL


DP7501
VSL0164·A,B
IC7501
MN187125VHP
IC6701 μPC1490HA (IR SIGNAL DECODER)
IR RECIEVER C.B.A. (VEP06380G/VEP06500G)
IC7503
MN1280L
MN1280K
IC7504
MN1280T
IC7502
MN12261
Q7501
2SD601
(POWER ON : ON)
QR7501
UN2213
(INV.)
QR7502
UN2212
(POWER ON : ON)
QR7525
UN2216
(LED DRIVE)
D7556 LN38GCPP AUTO TRACK
D7555 LN28RCPP INS. LED
D7554 LN28RCPP A.D. LED
X7501 VSX0140
X7502 VSX0094
TIMER CLOCK
(SW7504, SW7509, SW7512
SW7517, SW7527, SW7532~SW7546)
EVQ11407K×20
SW7504 (EJECT)
SW7509 (A.DUB)
SW7512 (INSERT)
SW7517 (CR)
SW7527 (T.SET)
SW7532 (T/C)
SW7533 (CH DN)
SW7534 (CH UP)
SW7535 (S−)
SW7536 (S+)
SW7537 (NEXT)
SW7538 (PROG)
SW7539 (CLOCK)
SW7540 (PRESET)
SW7541 (OFF−)
SW7542 (OFF+)
SW7543 (ON−)
SW7544 (ON+)
SW7545 (CLEAR)
SW7546 (BAND)
A-LINE
D-LINE
TP7501
P7501 (TO CH SELECT)
14 HEATER + P7401-1
13 HEATER − P7401-2
12 REG. 5V P7401-3
11 BACK UP. 5V P7401-4
10 N. SW. 5V P7401-5
9 GND P7401-6
8 REG. −29V P7401-7
7 BUZZER P7401-8
6 SYS. S. CLOCK P7401-9
5 SYS. S. DATA P7401-10
4 SOFT Ⓗ P7401-11
3 EDIT Ⓗ P7401-12
2 PICTURE P7401-13
1 ATR.OFF. Ⓛ P7401-14
P7505 (TO OPERATION)
1 P53 P6201-1
2 P42 P6201-2
3 P50 P6201-3
4 P44 P6201-4
5 P40 P6201-5
6 P51 P6201-6
7 P43 P6201-7
8 ATR.OFF. Ⓛ P6201-8
9 —— P6201-9
10 P55 P6201-10
11 GND P6201-11
12 EDIT Ⓗ P6201-12
13 SOFT Ⓗ P6201-13
14 —— P6201-14
15 REG. 5V P6201-15
16 PICTURE P6201-16
P7502 (TO CH SELECT)
15 FS CS P7402-1
14 FS DATA P7402-2
13 FS CLOCK P7402-3
12 —— P7402-4
11 SYNC Ⓛ P7402-5
10 A. DEF (S) P7402-6
9 GND P7402-7
8 AFC. (S) P7402-8
7 A. TRACK P7402-9
6 AUDIO DUB P7402-10
5 INS LED P7402-11
4 —— P7402-12
3 TIMER LNS P7402-13
2 TIMER TLK P7402-14
1 TIMER CLK P7402-15

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.


C7525
820P
R7549
3300
R7531
3300
PP
ED

P7501 (TO CH SELECT)

14	HEATER +	P7401 – 1
13	HEATER –	P7401 – 2
12	REG. 5 V	P7401 – 3
11	BACK UP. 5V	P7401 – 4
10	N. SW. 5 V	P7401 – 5
9	GND	P7401 – 6
8	REG. –29 V	P7401 – 7
7	BUZZER	P7401 – 8
6	SYS. S. CLOCK	P7401 – 9
5	SYS. S. DATA	P7401 – 10
4	SOFT Ⓗ	P7401 – 11
3	EDIT Ⓗ	P7401 – 12
2	PICTURE	P7401 – 13
1	ATR.OFF. Ⓛ	P7401 – 14

P7505 (TO OPERATION)

1	P 53	P6201 – 1
2	P 42	P6201 – 2
3	P 50	P6201 – 3
4	P 44	P6201 – 4
5	P 40	P6201 – 5
6	P 51	P6201 – 6
7	P 43	P6201 – 7
8	ATR. OFF. Ⓛ	P6201 – 8
9	————	P6201 – 9
10	P 55	P6201 – 10
11	GND	P6201 – 11
12	EDIT Ⓗ	P6201 – 12
13	SOFT Ⓗ	P6201 – 13
14	————	P6201 – 14
15	REG. 5V	P6201 – 15
16	PICTURE	P6201 – 16

P7502 (TO CH SELECT)

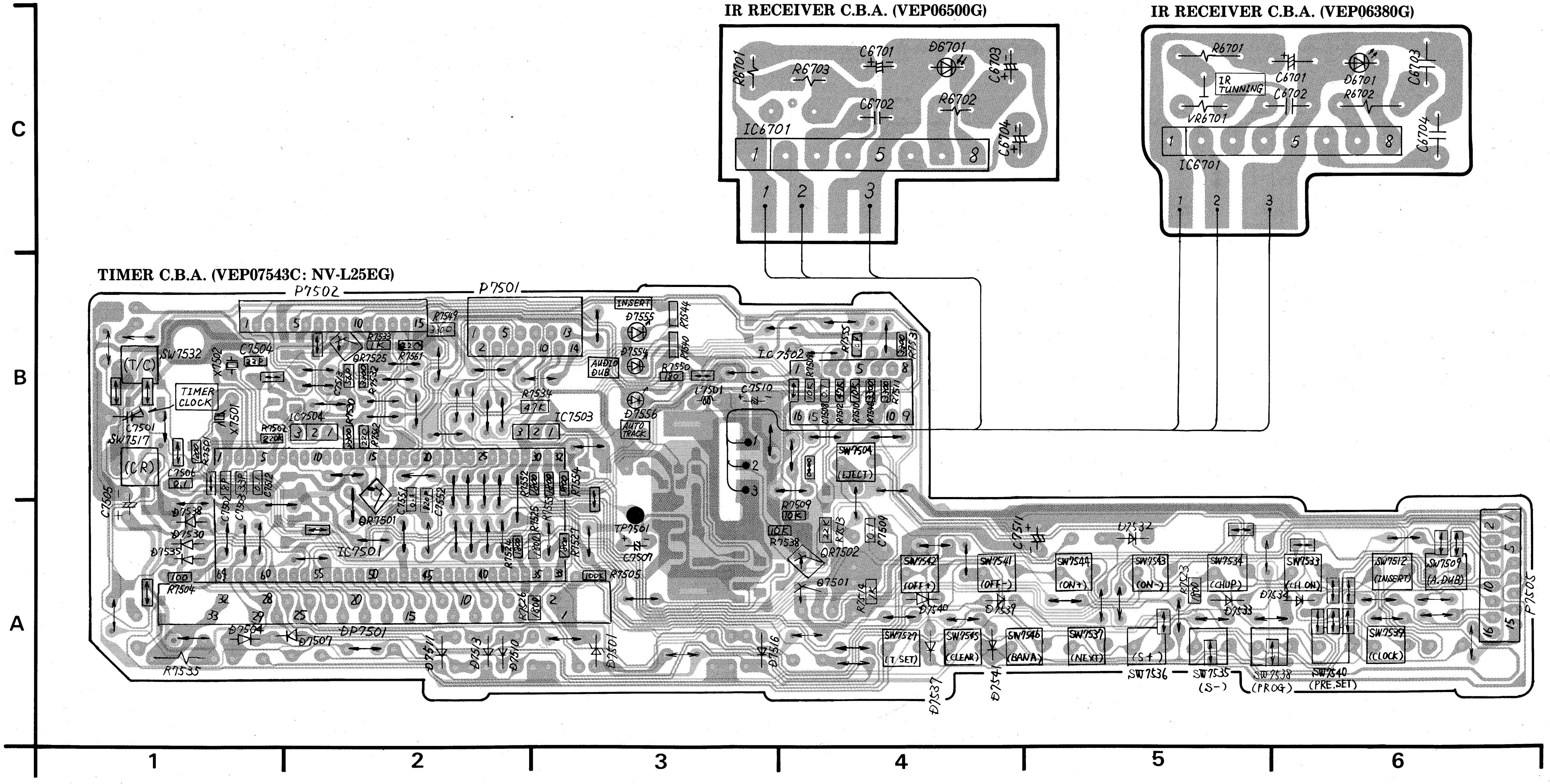
15	FS CS	P7402 – 1
14	FS DATA	P7402 – 2
13	FS CLOCK	P7402 – 3
12	————	P7402 – 4
11	SYNC Ⓛ	P7402 – 5
10	A. DEF (S)	P7402 – 6
9	GND	P7402 – 7
8	AFC. (S)	P7402 – 8
7	A. TRACK	P7402 – 9
6	AUDIO DUB	P7402 – 10
5	INS LED	P7402 – 11
4	————	P7402 – 12
3	TIMER LNS	P7402 – 13
2	TIMER TLK	P7402 – 14
1	TIMER CLK	P7402 – 15

DE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

3-25. TIMER C.B.A. (VEP07543C: NV-L25EG)

TIMER C.B.A.			
Transistor		**Test Point**	
Q7501	A-4	TP7501	A-3
Transistor & Resistor		**Adjustment**	
QR7501 QR7502 QR7525	A-2 A-4 B-2	C7501 VR6701	B-1 C-5
Integrated Circuit		**Connector**	
IC6701 IC6701 IC7501 IC7502 IC7503 IC7504	C-3 C-5 A-2 B-4 B-3 B-2	P7501 P7502 P7505	B-2 B-2 A-6

ADDRESS INFORMATION


IR RECEIVER C.B.A. (VEP06500G)

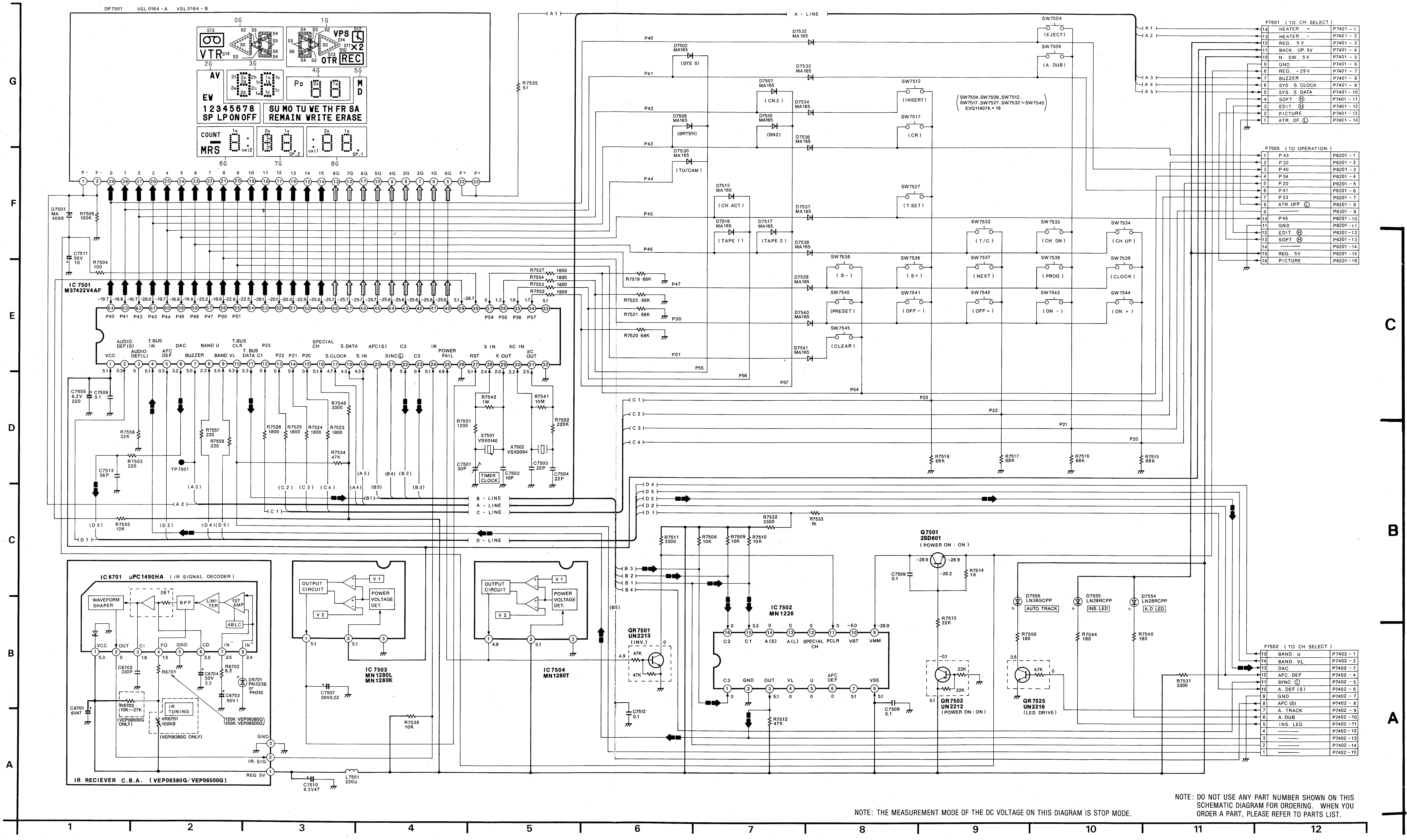
IR RECEIVER C.B.A. (VEP06380G)

TIMER C.B.A. (VEP07543C: NV-L25EG)

C
B
A
1
2
3
4
5
6
R6701
R6703
C6701
D6701
C6703
C6702
R6702
C6704
IC6701
IR TUNNING
VR6701
P7502
P7501
SW7532
(T/C)
TIMER CLOCK
X7501
C7504
IC7504
R7502
C7501
SW7517
(CR)
C7506
C7505
QR7525
R7533
R7561
R7549
QR7501
IC7501
R7504
R7535
D7538
D7530
D7535
D7504
D7507
DP7501
D7511
D7513
D7510
D7501
IC7503
R7534
INSERT
D7555
D7554
AUDIO DUB
D7556
AUTO TRACK
R7544
R7540
R7550
L7501
C7510
IC7502
TP7501
C7507
R7505
SW7504
(EJECT)
R7509
R7538
QR7502
Q7501
C7509
C7511
D7532
SW7542 (OFF+)
SW7541 (OFF-)
SW7544 (ON+)
SW7543 (ON-)
SW7534 (CHUP)
SW7533 (CH ON)
SW7512 (INSERT)
SW7509 (A.DUB)
SW7527 (T SET)
SW7545 (CLEAR)
SW7546 (BANA)
SW7537 (NEXT)
SW7536 (S+)
SW7535 (S-)
SW7538 (PROG)
SW7540 (PRE.SET)
SW7539 (CLOCK)
D7540
D7539
D7534
D7533
D7537
D7541
D7516
P7505

3-26. TIMER SCHEMATIC DIAGRAM (NV-L25B)

SEGMENT CONTROL SIGNAL   GRID CONTROL SIGNAL   TUNE CONTROL SIGNAL


DP7501 VSL0164-A VSL0164-B
0G 1G 2G 3G 4G 5G 6G 7G 8G
VTR VPS OTR REC AV EW Po M D
12345678 SP LP ON OFF
SU MO TU WE TH FR SA REMAIN WRITE ERASE
COUNT MRS
D7501 MA4068
R7505 100K
C7511 50V 10
R7504 100
IC7501 M37422V4AF
P40 P41 P42 P43 P44 P45 P46 P47 P00 P01
P54 P55 P56 P57
VCC AUDIO DEF(S) AUDIO DEF(L) T.BUS IN AFC DEF DAC BUZZER BAND U BAND VL T.BUS CLK T.BUS DATA C1 P23 P22 P21 P20 SPECIAL CH S.CLOCK S.DATA S.IN AFC(S) SINC C2 C3 IR POWER FAIL RST X IN X OUT XC IN XC OUT
C7505 6.3V 220
C7506 0.1
R7556 33K
R7503 220
C7513 56P
TP7501
R7557 220
R7558 220
R7526 1800
R7525 1800
R7524 1800
R7523 1800
R7546 3300
R7534 47K
R7501 1200
R7542 1M
X7501 VSX0140
C7501 30P
TIMER CLOCK
C7502 10P
R7541 10M
X7502 VSX0094
C7503 22P
C7504 22P
R7502 220K
R7555 10K
B-LINE A-LINE C-LINE D-LINE
R7527 1800 R7554 1800 R7553 1800 R7552 1800
R7519 68K R7522 68K R7521 68K R7520 68K
D7502 MA165 (SYS 0)
D7508 MA165 (BRTSH)
D7530 MA165 (TU/CAM)
D7513 MA165 (CH ACT)
D7516 MA165 (TAPE 1)
D7517 MA165 (TAPE 2)
D7507 MA165 (CN2)
D7510 MA165 (BN2)
D7532 MA165
D7533 MA165
D7534 MA165
D7536 MA165
D7537 MA165
D7538 MA165
D7539 MA165
D7540 MA165
D7541 MA165
SW7504 (EJECT)
SW7509 (A. DUB)
SW7512 (INSERT)
SW7517 (CR)
SW7527 (T.SET)
SW7504, SW7509, SW7512, SW7517, SW7527, SW7532~SW7545 EVQ11407K×19
SW7532 (T/C)
SW7533 (CH DN)
SW7534 (CH UP)
SW7535 (S-)
SW7536 (S+)
SW7537 (NEXT)
SW7538 (PROG)
SW7539 (CLOCK)
SW7540 (PRESET)
SW7541 (OFF-)
SW7542 (OFF+)
SW7543 (ON-)
SW7544 (ON+)
SW7545 (CLEAR)
R7518 68K R7517 68K R7516 68K R7515 68K
IC6701 μPC1490HA (IR SIGNAL DECODER)
WAVEFORM SHAPER DET BPF LIMITER 1ST AMP ABLC
C6702 330P
R6701
C6704 50V 3.3
R6702 8.2
C6703 50V1
D6701 PN323B or PH310
R6703 10K~27K (VEP06500G ONLY)
IR TUNING VR6701 100KB (VEP06380G ONLY)
(120K: VEP06380G 150K: VEP06500G)
C6701 6V47
GND IR.SIG REG 5V
IR RECIEVER C.B.A. (VEP06380G/VEP06500G)
C7510 6.3V47
L7501 220μ
IC7503 MN1280L MN1280K
OUTPUT CIRCUIT POWER VOLTAGE DET. V1 V2
C7507 50V0.22
R7538 10K
IC7504 MN1280T
QR7501 UN2213 (INV.)
C7512 0.1
R7512 47K
R7511 3300 R7508 10K R7509 10K R7510 10K
R7532 3300
R7533 1K
IC7502 MN1226
C2 C1 A(S) A(L) SPECIAL CH PCLR VBT VMM C3 GND OUT VL U AFC DEF VSS
C7508 0.1
Q7501 2SD601 (POWER ON : ON)
C7509 0.1
R7514 1K
R7513 22K
QR7502 UN2212 (POWER ON : ON)
D7556 LN38GCPP AUTO TRACK
D7555 LN28RCPP INS. LED
D7554 LN28RCPP A.D LED
R7550 180 R7544 180 R7540 180
QR7525 UN2216 (LED DRIVE)
R7531 3300
G F E D C B A
1 2 3 4 5 6 7 8 9 10 11 12

P7501 (TO CH SELECT)

14	HEATER +	P7401 - 1
13	HEATER -	P7401 - 2
12	REG. 5 V	P7401 - 3
11	BACK UP. 5V	P7401 - 4
10	N. SW. 5 V	P7401 - 5
9	GND	P7401 - 6
8	REG. -29 V	P7401 - 7
7	BUZZER	P7401 - 8
6	SYS. S. CLOCK	P7401 - 9
5	SYS. S. DATA	P7401 - 10
4	SOFT Ⓗ	P7401 - 11
3	EDIT Ⓗ	P7401 - 12
2	PICTURE	P7401 - 13
1	ATR. DF. Ⓛ	P7401 - 14

P7505 (TO OPERATION)

1	P 43	P6201 - 1
2	P 22	P6201 - 2
3	P 40	P6201 - 3
4	P 54	P6201 - 4
5	P 20	P6201 - 5
6	P 41	P6201 - 6
7	P 23	P6201 - 7
8	ATR. OFF. Ⓛ	P6201 - 8
9	———	P6201 - 9
10	P 45	P6201 - 10
11	GND	P6201 - 11
12	EDIT Ⓗ	P6201 - 12
13	SOFT Ⓗ	P6201 - 13
14	———	P6201 - 14
15	REG. 5V	P6201 - 15
16	PICTURE	P6201 - 16

P7502 (TO CH SELECT)

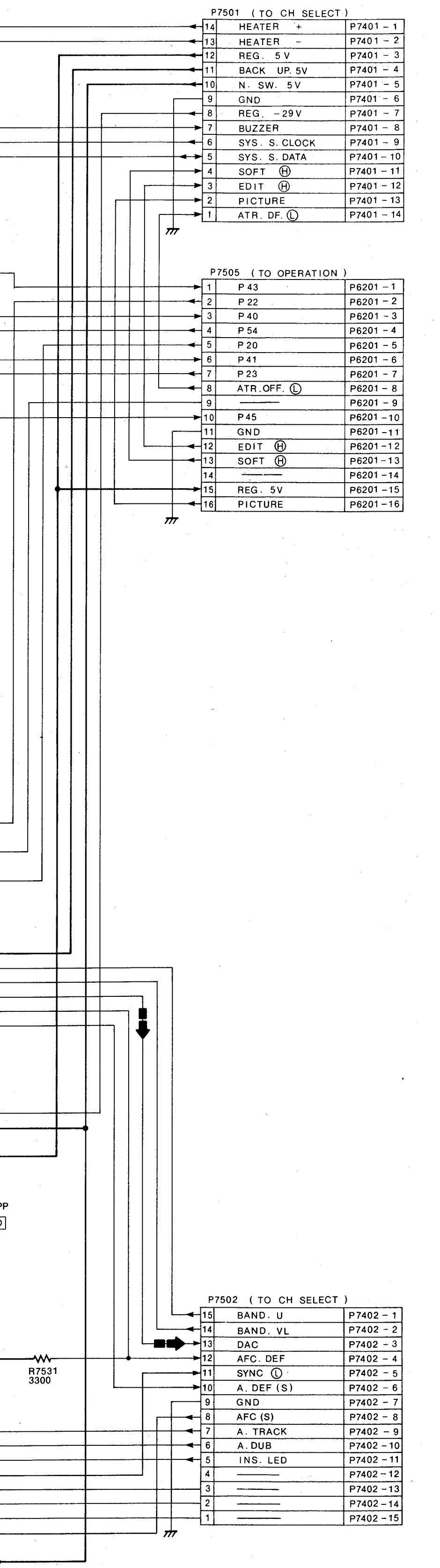
15	BAND. U	P7402 - 1
14	BAND. VL	P7402 - 2
13	DAC	P7402 - 3
12	AFC. DEF	P7402 - 4
11	SYNC Ⓛ	P7402 - 5
10	A. DEF (S)	P7402 - 6
9	GND	P7402 - 7
8	AFC (S)	P7402 - 8
7	A. TRACK	P7402 - 9
6	A. DUB	P7402 - 10
5	INS. LED	P7402 - 11
4	———	P7402 - 12
3	———	P7402 - 13
2	———	P7402 - 14
1	———	P7402 - 15

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

Back Page:
TIMER Section

NAL

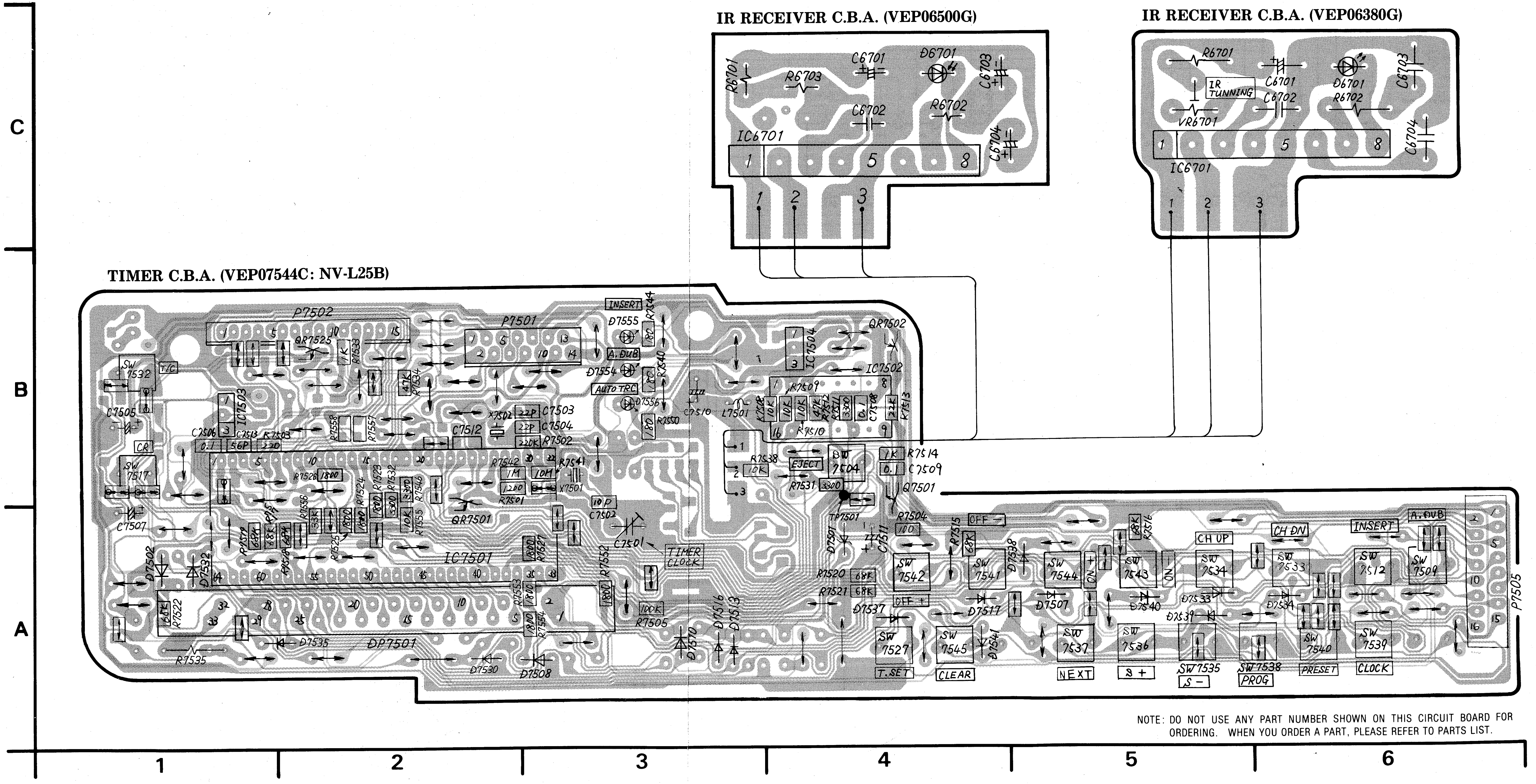

P7501 (TO CH SELECT)
14 HEATER + P7401-1
13 HEATER − P7401-2
12 REG. 5V P7401-3
11 BACK UP 5V P7401-4
10 N. SW. 5V P7401-5
9 GND P7401-6
8 REG. −29V P7401-7
7 BUZZER P7401-8
6 SYS. S. CLOCK P7401-9
5 SYS. S. DATA P7401-10
4 SOFT Ⓗ P7401-11
3 EDIT Ⓗ P7401-12
2 PICTURE P7401-13
1 ATR. DF. Ⓛ P7401-14
P7505 (TO OPERATION)
1 P43 P6201-1
2 P22 P6201-2
3 P40 P6201-3
4 P54 P6201-4
5 P20 P6201-5
6 P41 P6201-6
7 P23 P6201-7
8 ATR. OFF. Ⓛ P6201-8
9 P6201-9
10 P45 P6201-10
11 GND P6201-11
12 EDIT Ⓗ P6201-12
13 SOFT Ⓗ P6201-13
14 P6201-14
15 REG. 5V P6201-15
16 PICTURE P6201-16
P7502 (TO CH SELECT)
15 BAND. U P7402-1
14 BAND. VL P7402-2
13 DAC P7402-3
12 AFC. DEF P7402-4
11 SYNC Ⓛ P7402-5
10 A. DEF (S) P7402-6
9 GND P7402-7
8 AFC (S) P7402-8
7 A. TRACK P7402-9
6 A. DUB P7402-10
5 INS. LED P7402-11
4 P7402-12
3 P7402-13
2 P7402-14
1 P7402-15
R7531
3300
11
12

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

3-27. TIMER C.B.A. (VEP07544C: NV-L25B)

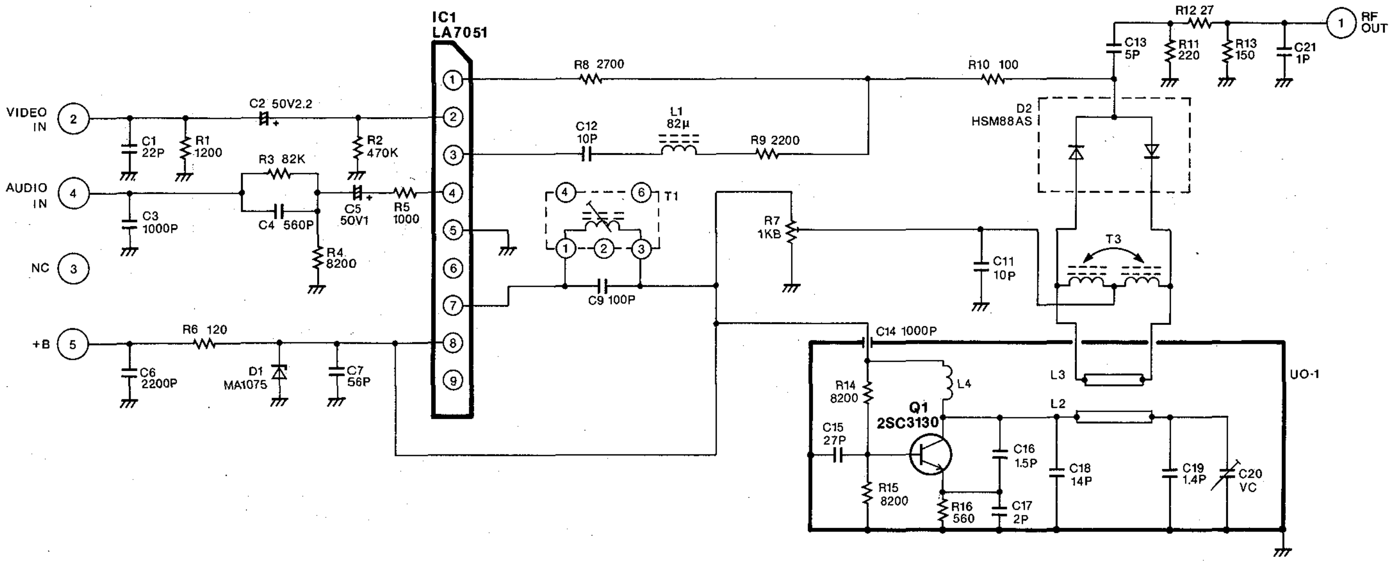
TIMER C.B.A.			
Transistor		**Test Point**	
Q7501	B-4	TP7501	B-4
Transistor & Resistor		**Adjustment**	
QR7501	A-2	C7501	A-3
QR7502	B-4	VR6701	C-5
QR7525	B-2	**Connector**	
Integrated Circuit		P7501	B-2
IC6701	C-4	P7502	B-2
IC6701	C-5	P7505	A-6
IC7501	B-2		
IC7502	B-4		
IC7503	B-1		
IC7504	B-2		

ADDRESS INFORMATION


IR RECEIVER C.B.A. (VEP06500G)
IR RECEIVER C.B.A. (VEP06380G)
TIMER C.B.A. (VEP07544C: NV-L25B)
R6701
R6703
C6701
D6701
C6703
C6702
R6702
C6704
IC6701
IR TUNNING
VR6701
P7502
P7501
QR7525
INSERT
D7555
A.DUB
D7554
AUTO TRC
QR7502
IC7504
IC7502
SW 7532
C7505
C7503
C7504
R7502
CR
SW 7517
C7507
EJECT
SW 7504
Q7501
TP7501
IC7501
QR7501
C7501
TIMER CLOCK
DP7501
R7535
D7535
D7530
D7508
R7505
OFF
CH UP
CH DN
SW 7542
SW 7541
SW 7544
SW 7543
SW 7534
SW 7533
SW 7512
SW 7509
SW 7527
T.SET
SW 7545
CLEAR
SW 7537
NEXT
SW 7536
S+
SW 7535
S−
SW 7538
PROG
SW 7540
PRESET
SW 7539
CLOCK
P7505
A
B
C
1
2
3
4
5
6

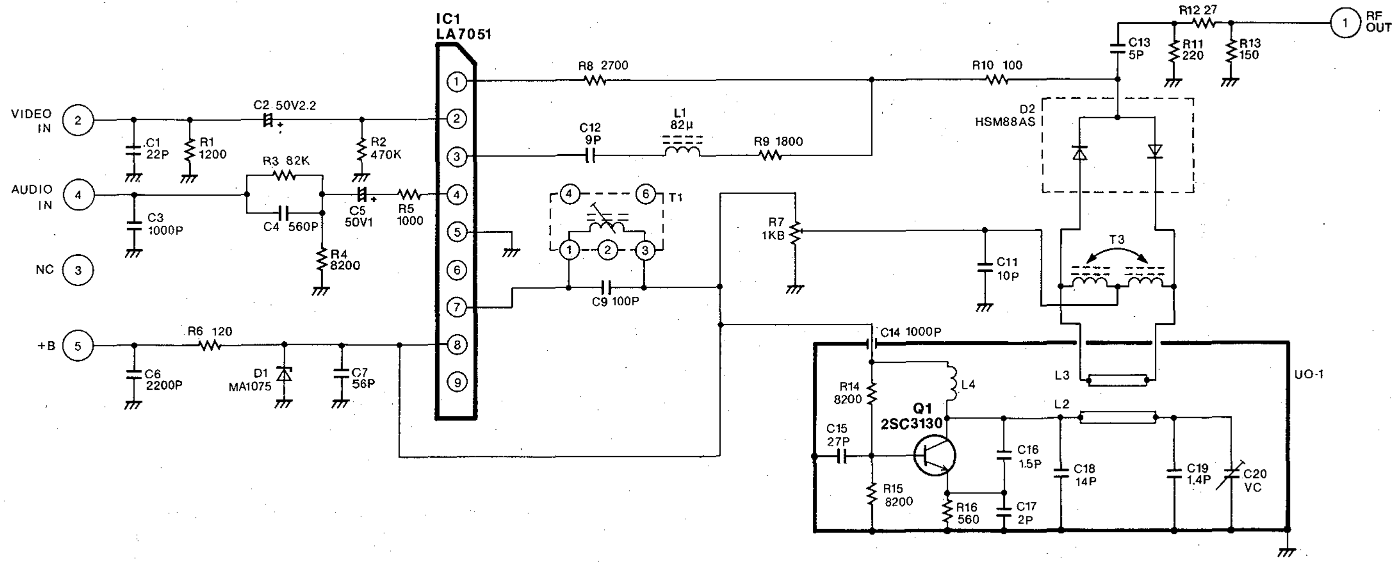
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS CIRCUIT BOARD FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

3-28. RF CONVERTER SCHEMATIC DIAGRAM (ENC17956: NV-L25EG)



IC1
LA7051
VIDEO IN ②
AUDIO IN ④
NC ③
+B ⑤
C1 22P
R1 1200
C2 50V2.2
R2 470K
R3 82K
C3 1000P
C4 560P
C5 50V1
R5 1000
R4 8200
R6 120
C6 2200P
D1 MA1075
C7 56P
R8 2700
C12 10P
L1 82μ
R9 2200
T1
C9 100P
R7 1KB
C11 10P
R10 100
R12 27
C13 5P
R11 220
R13 150
C21 1P
① RF OUT
D2 HSM88AS
T3
C14 1000P
L3
L2
L4
UO-1
R14 8200
Q1 2SC3130
C15 27P
R15 8200
R16 560
C16 1.5P
C17 2P
C18 14P
C19 1.4P
C20 VC

3-29. RF CONVERTER SCHEMATIC DIAGRAM (ENC17952: NV-L25B)

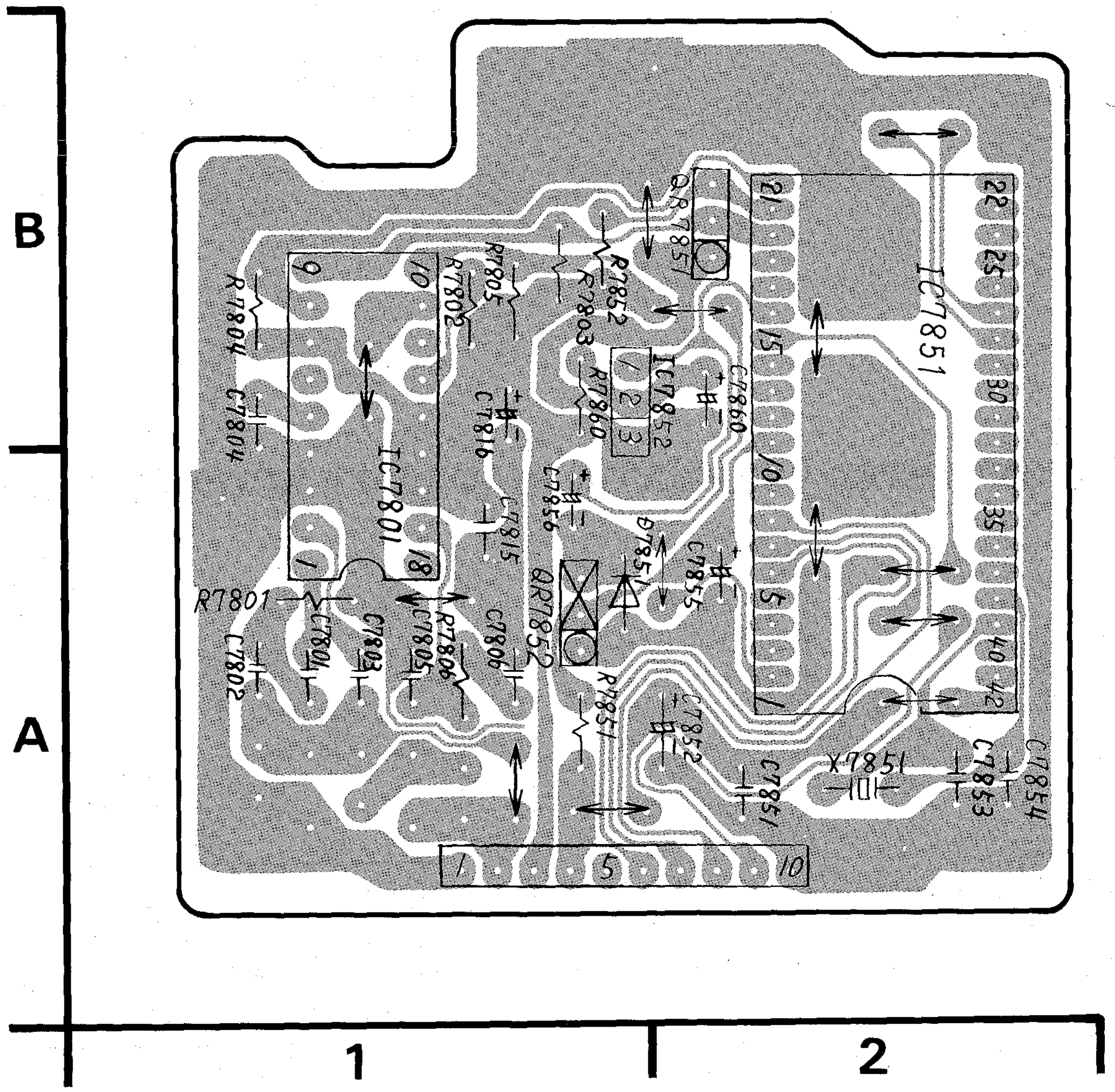


IC1
LA7051
VIDEO IN ②
AUDIO IN ④
NC ③
+B ⑤
C1 22P
R1 1200
C2 50V2.2
R2 470K
R3 82K
C3 1000P
C4 560P
C5 50V1
R5 1000
R4 8200
R6 120
C6 2200P
D1 MA1075
C7 56P
R8 2700
C12 9P
L1 82μ
R9 1800
T1
C9 100P
R7 1KB
C11 10P
R10 100
R12 27
C13 5P
R11 220
R13 150
① RF OUT
D2 HSM88AS
T3
C14 1000P
L3
L2
L4
UO-1
R14 8200
Q1 2SC3130
C15 27P
R15 8200
R16 560
C16 1.5P
C17 2P
C18 14P
C19 1.4P
C20 VC

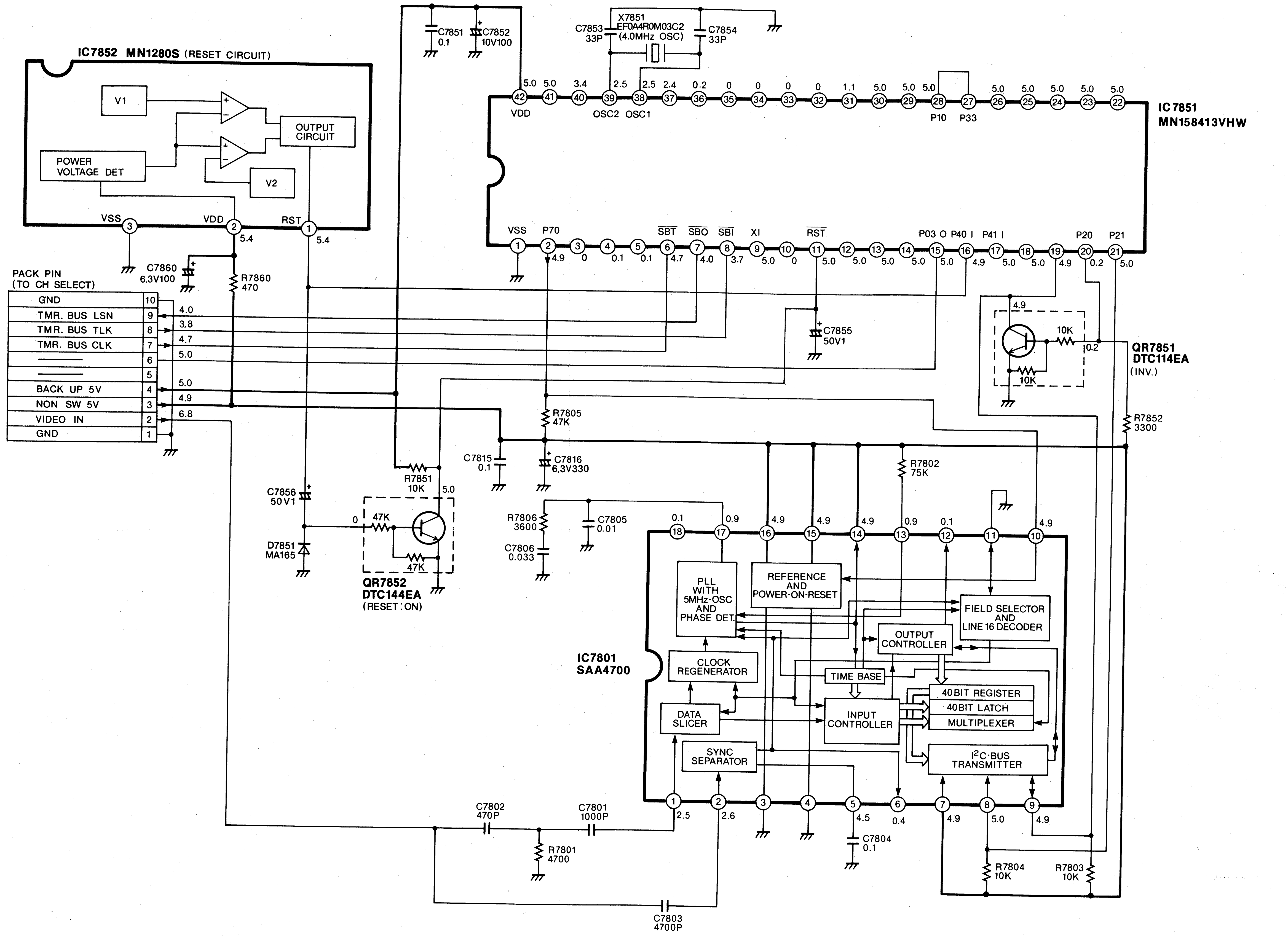
3-30. VPS PACK C.B.A. (VEP07538B: NV-L25EG)

VPS PACK C.B.A.	
Transistor & Resistor	
QR7851	B-2
QR7852	A-1
Integrated Circuit	
IC7801	A-1
IC7851	B-2
IC7852	B-2

ADDRESS INFORMATION


B
A
1
2
IC7851
21
22
25
15
30
10
35
5
40
42
1
QR7851
R7852
R7803
R7805
R7802
R7804
C7804
IC7852
1
2
3
C7860
R7860
C7816
IC7801
9
10
1
18
C7815
C7856
D7851
C7855
QR7852
R7801
C7801
C7803
C7805
R7806
C7806
C7802
R7851
C7852
C7851
X7851
C7853
C7854
1
5
10

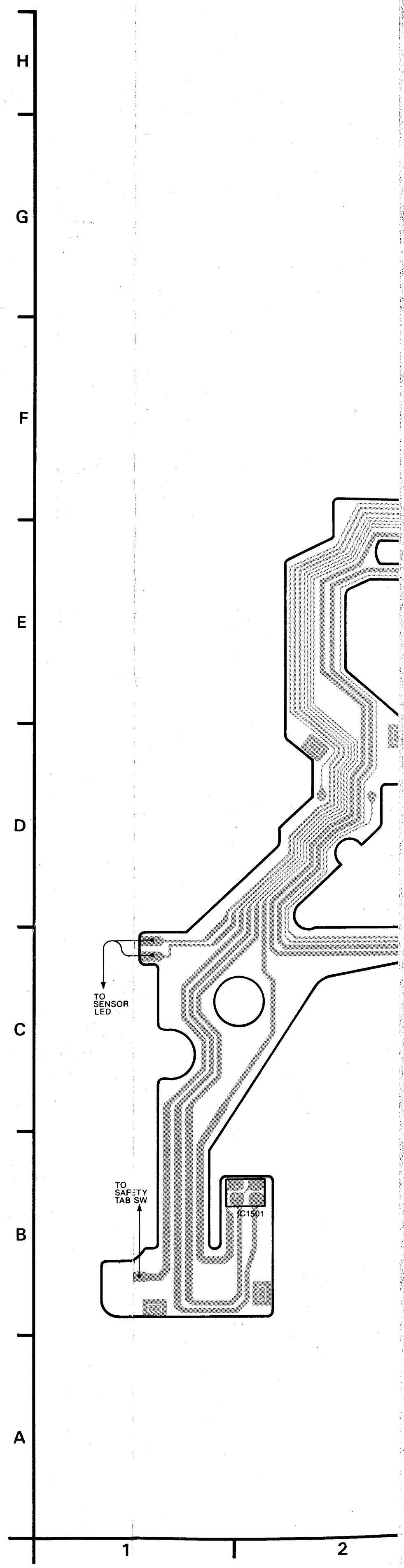
3-31. VPS PACK SCHEMATIC DIAGRAM (NV-L25EG)

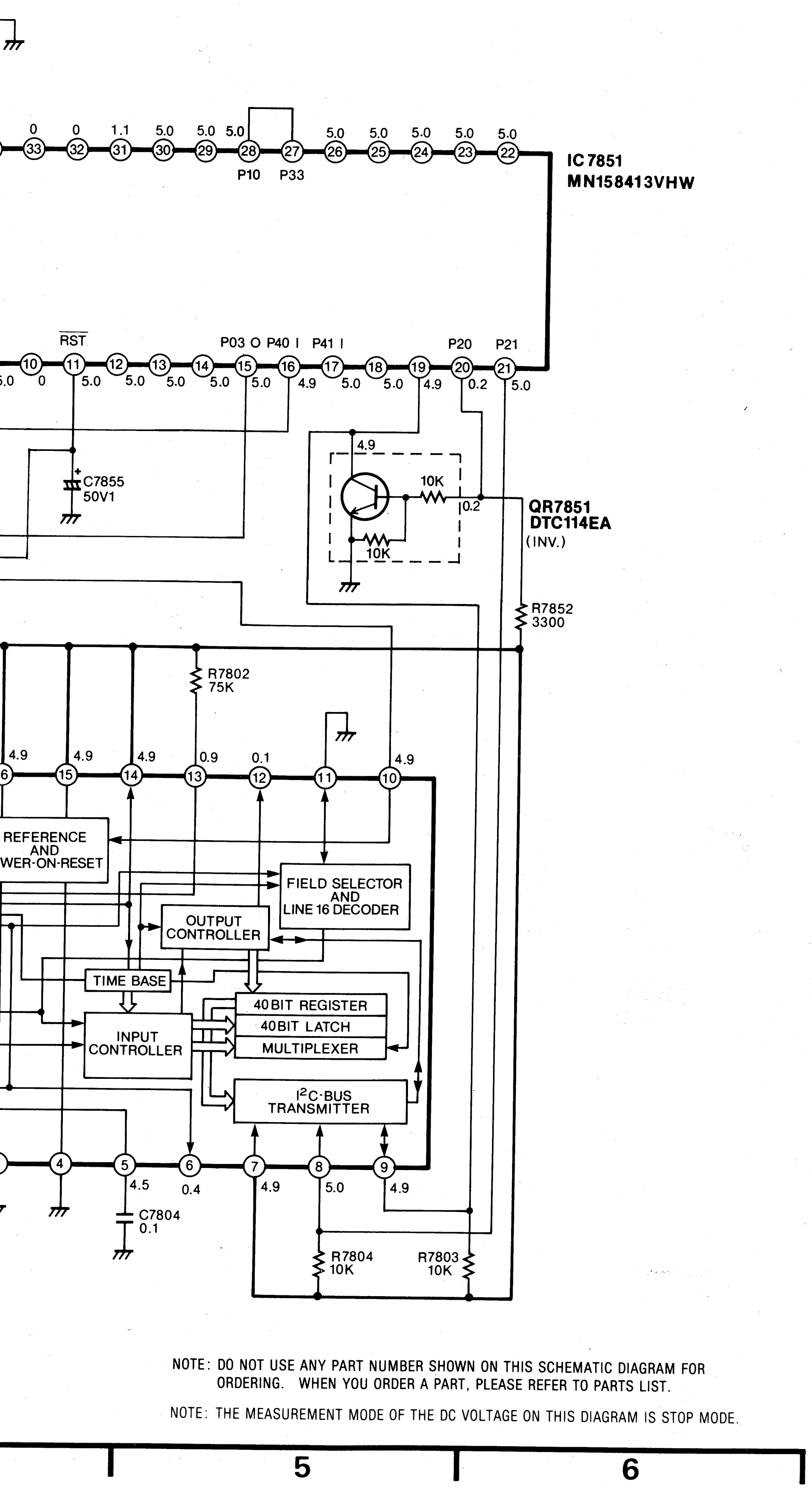

IC7852 MN1280S (RESET CIRCUIT)
V1
V2
POWER VOLTAGE DET
OUTPUT CIRCUIT
VSS
VDD
RST
5.4
C7860 6.3V100
R7860 470
C7851 0.1
C7852 10V100
X7851 EF0A4R0M03C2 (4.0MHz OSC)
C7853 33P
C7854 33P
IC7851 MN158413VHW
VDD
OSC2
OSC1
P10
P33
VSS
P70
SBT
SBO
SBI
XI
RST
P03 O
P40 I
P41 I
P20
P21
PACK PIN (TO CH SELECT)
GND
TMR. BUS LSN
TMR. BUS TLK
TMR. BUS CLK
BACK UP 5V
NON SW 5V
VIDEO IN
C7855 50V1
QR7851 DTC114EA (INV.)
10K
R7852 3300
R7805 47K
C7815 0.1
C7816 6.3V330
R7851 10K
C7856 50V1
D7851 MA165
QR7852 DTC144EA (RESET:ON)
47K
R7806 3600
C7805 0.01
C7806 0.033
R7802 75K
IC7801 SAA4700
PLL WITH 5MHz-OSC AND PHASE DET.
REFERENCE AND POWER-ON-RESET
FIELD SELECTOR AND LINE 16 DECODER
OUTPUT CONTROLLER
CLOCK REGENERATOR
TIME BASE
DATA SLICER
INPUT CONTROLLER
40BIT REGISTER
40BIT LATCH
MULTIPLEXER
SYNC SEPARATOR
I²C-BUS TRANSMITTER
C7802 470P
C7801 1000P
R7801 4700
C7803 4700P
C7804 0.1
R7804 10K
R7803 10K
D
C
B
A
1
2
3
4
5
6

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

3-32. MAIN C.B.A. (V

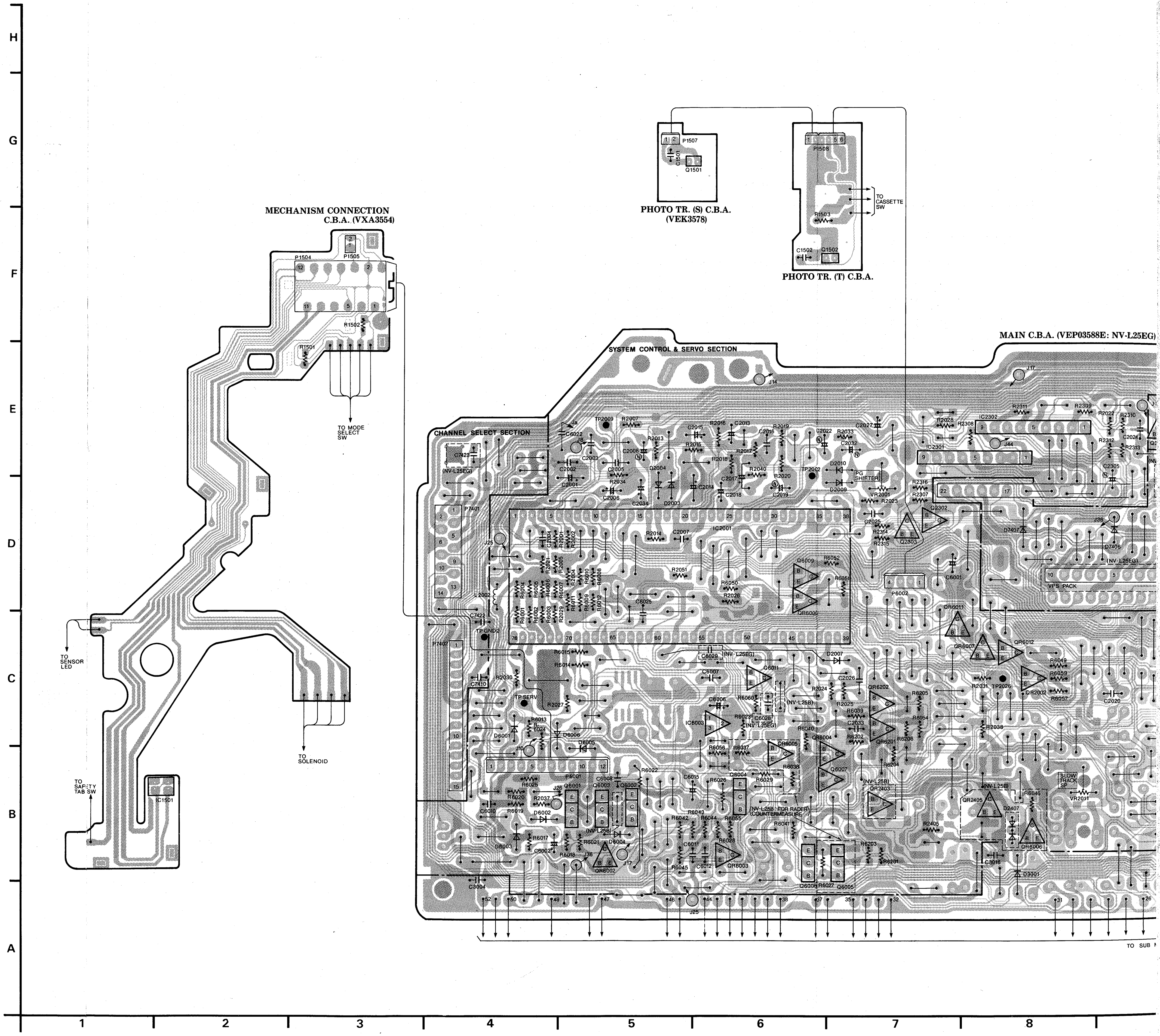

H
G
F
E
D
C
B
A
TO SENSOR LED
TO SAFETY TAB SW
IC1501
1
2


IC7851
MN158413VHW
P10 P33
RST
P03 O P40 I P41 I
P20 P21
C7855
50V1
QR7851
DTC114EA
(INV.)
10K
R7852
3300
R7802
75K
REFERENCE
AND
WER-ON-RESET
FIELD SELECTOR
AND
LINE 16 DECODER
OUTPUT
CONTROLLER
TIME BASE
INPUT
CONTROLLER
40BIT REGISTER
40BIT LATCH
MULTIPLEXER
I²C-BUS
TRANSMITTER
C7804
0.1
R7804
10K
R7803
10K
5
6

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

3-32. MAIN C.B.A. (VEP03588E: NV-L25EG) (VEP03588G: NV-L25B)


H
G
F
E
D
C
B
A
MECHANISM CONNECTION
C.B.A. (VXA3554)
PHOTO TR. (S) C.B.A.
(VEK3578)
PHOTO TR. (T) C.B.A.
TO CASSETTE SW
TO MODE SELECT SW
TO SENSOR LED
TO SOLENOID
TO SAFETY TAB SW
MAIN C.B.A. (VEP03588E: NV-L25EG)
SYSTEM CONTROL & SERVO SECTION
CHANNEL SELECT SECTION
VPS PACK
SLOW TRACK SP
TO SUB
1
2
3
4
5
6
7
8

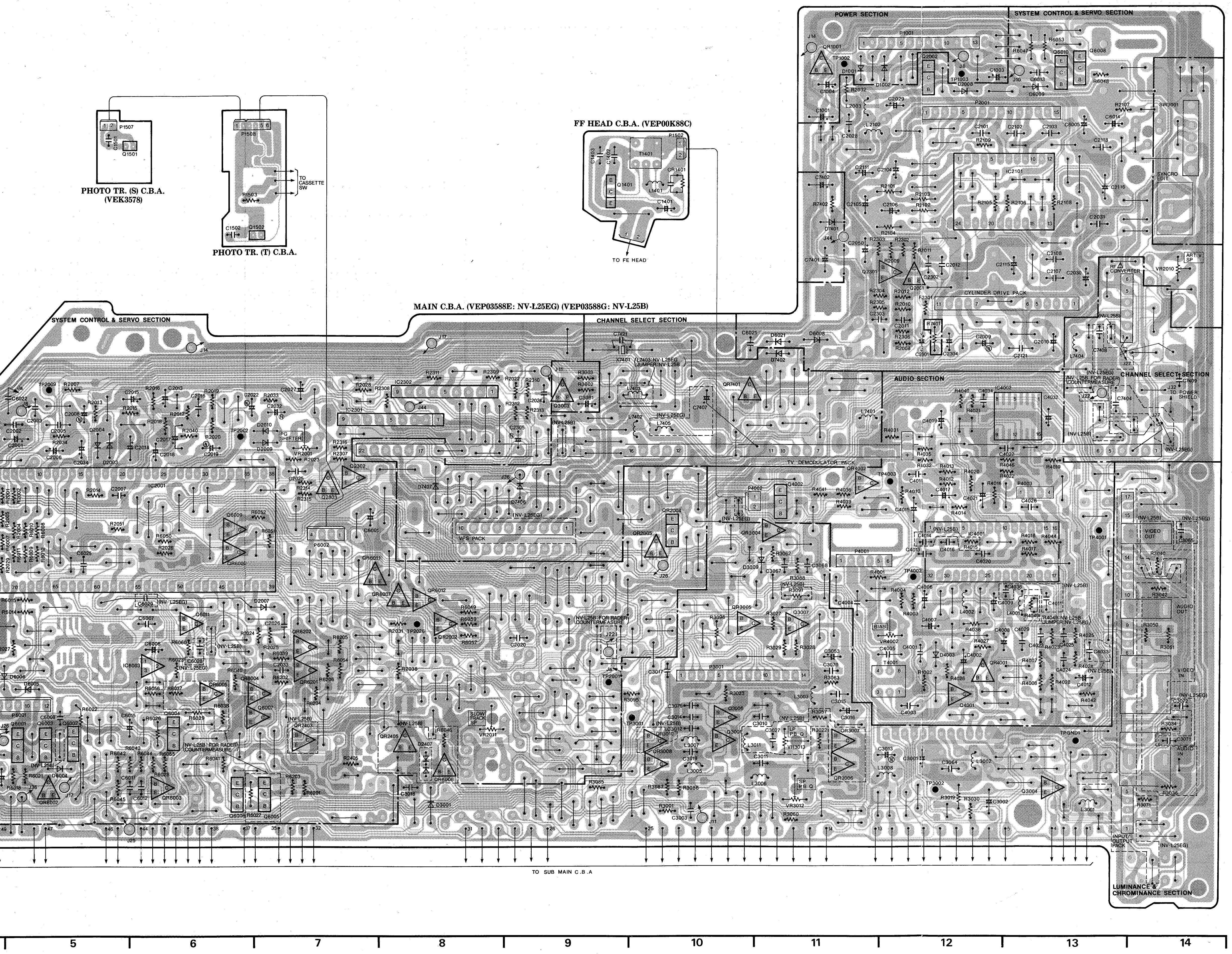


PHOTO TR. (S) C.B.A.
(VEK3578)
P1507
Q1501
PHOTO TR. (T) C.B.A.
P1508
R1503
TO CASSETTE SW
C1502
Q1502
FF HEAD C.B.A. (VEP00K88C)
P1502
T1401
Q1401
L1401
CR1401
C1401
TO FE HEAD
MAIN C.B.A. (VEP03588E: NV-L25EG) (VEP03588G: NV-L25B)
POWER SECTION
SYSTEM CONTROL & SERVO SECTION
CHANNEL SELECT SECTION
AUDIO SECTION
TV DEMODULATOR PACK
VPS PACK
CYLINDER DRIVE PACK
RF CONVERTER
LUMINANCE & CHROMINANCE SECTION
INPUT/OUTPUT PACK
VIDEO OUT
AUDIO OUT
VIDEO IN
AUDIO IN
TO SUB MAIN C.B.A
5
6
7
8
9
10
11
12
13
14

MAIN C.B.A. ADDRESS INFORMATION

POWER Section	
Transistor & Resistor	
QR1001	H-11
Test Point	
TP1002	H-11
TP1003	G-12
TPGND1	B-13
Connector	
P1001	H-12

ADDRESS INFORMATION

LUMINANCE & CHROMINANCE Section	
Transistor	
Q3001	B-10
Q3003	E-9
Q3004	B-13
Q3006	B-10
Q3007	C-11
Transistor & Resistor	
QR3004	D-11
QR3005	C-10
QR3006	B-11
QR3007	B-11
QR3008	B-10
QR3010	B-10
Test Point	
TP3001	B-10
TP3002	B-12
Adjustment	
VR3012	B-11
VR3013	B-11
Connector	
P3001	C-10

ADDRESS INFORMATION

AUDIO Section	
Transistor	
Q1401	G-9
Q4001	B-12
Q4002	D-11
Transistor & Resistor	
QR4001	C-12
QR4002	D-11
Integrated Circuit	
IC4001	D-12
IC4002	E-13
Test Point	
TP4001	D-13
TP4002	C-12
TP4003	D-12
Adjustment	
VR4002	C-12
Connector	
P1502	G-10
P4001	D-11
P4002	D-11
P4003	D-13

ADDRESS INFORMATION

SYSTEM CONTROL & SERVO Section	
Transistor	
Q1501	G-6
Q1502	F-7
Q2001	F-12
Q2002	H-12
Q2301	F-11
Q2302	D-7
Q2303	D-7
Q6001	B-5
Q6002	B-5
Q6003	B-5
Q6004	B-6
Q6005	A-7
Q6006	A-6
Q6007	B-7
Q6008	H-13
Q6009	D-6
Q6010	H-13
Q6011	C-6
Transistor & Resistor	
QR2002	C-8
QR2004	D-10
QR2005	D-10
QR2403	B-7
QR2405	B-8
QR6002	B-5
QR6003	B-6
QR6004	B-7
QR6005	B-6
QR6006	B-8
QR6007	C-8
QR6008	D-6
QR6011	D-7
QR6012	C-8
QR6201	C-7
QR6202	C-7
Integrated Circuit	
IC1501	B-2
IC2001	D-6
IC2101	G-13
IC2301	E-7
IC2302	E-8
IC6003	C-6
Test Point	
TP2001	C-9
TP2002	E-6
TP2009	E-5
TP2026	C-8
TPSERV	C-4
TPGND2	C-4
Adjustment	
VR2001	D-7
VR2009	E-14
VR2010	F-14
VR2011	B-8
Connector	
P1504	F-3
P1505	F-3
P1507	G-5
P1508	G-6
P2001	G-12
P6001	B-5
P6002	D-7

ADDRESS INFORMATION

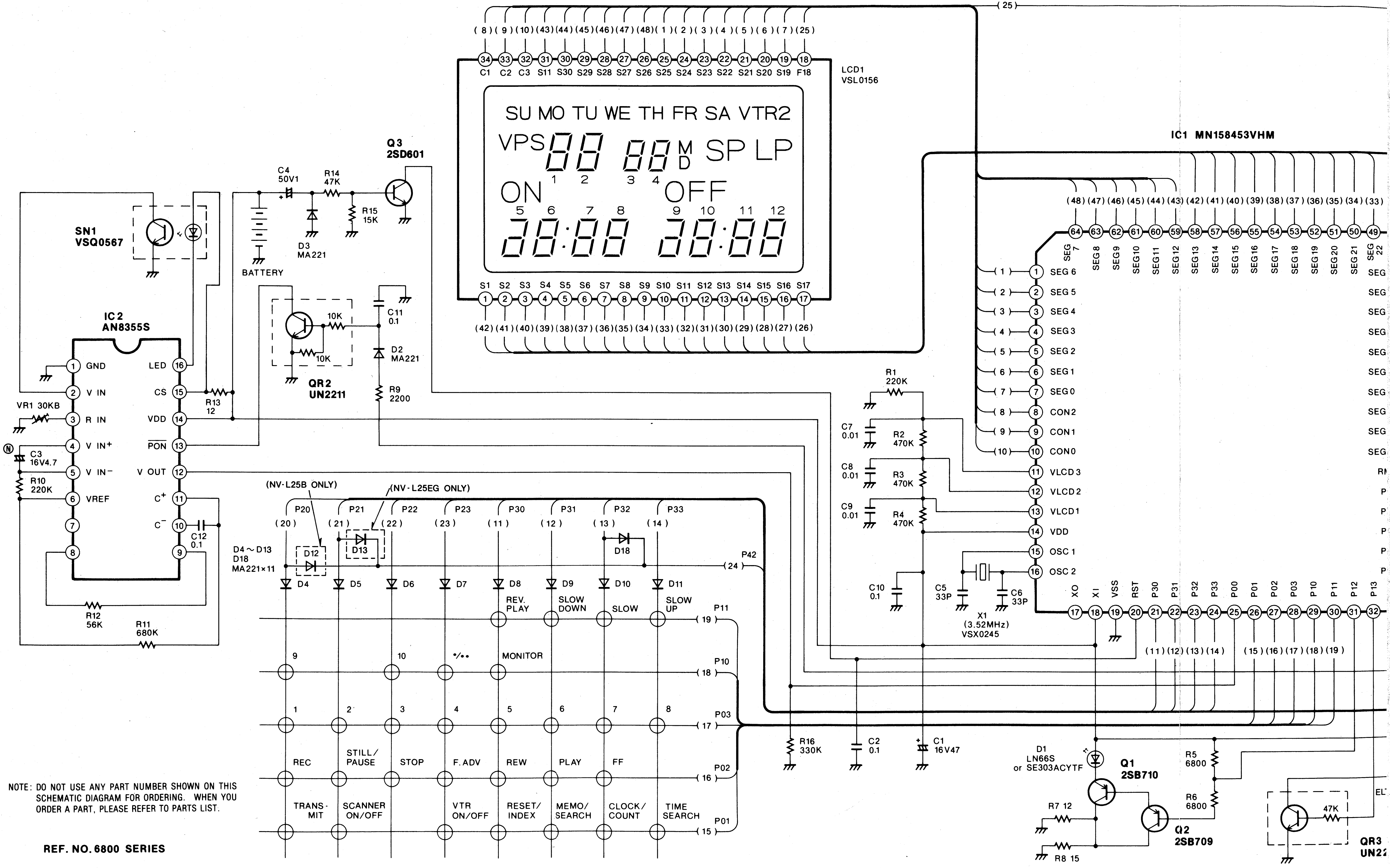
CHANNEL SELECT Section	
Transistor & Resistor	
QR7401	E-10
Connector	
P7401	D-4
P7402	C-4

ADDRESS INFORMATION

Next Page:
REMOTE CONTROLLER Section

3-33. REMOTE CONTROLLER (BUILD IN DIGITAL SCANNER) SCHEMATIC DIAGRAM

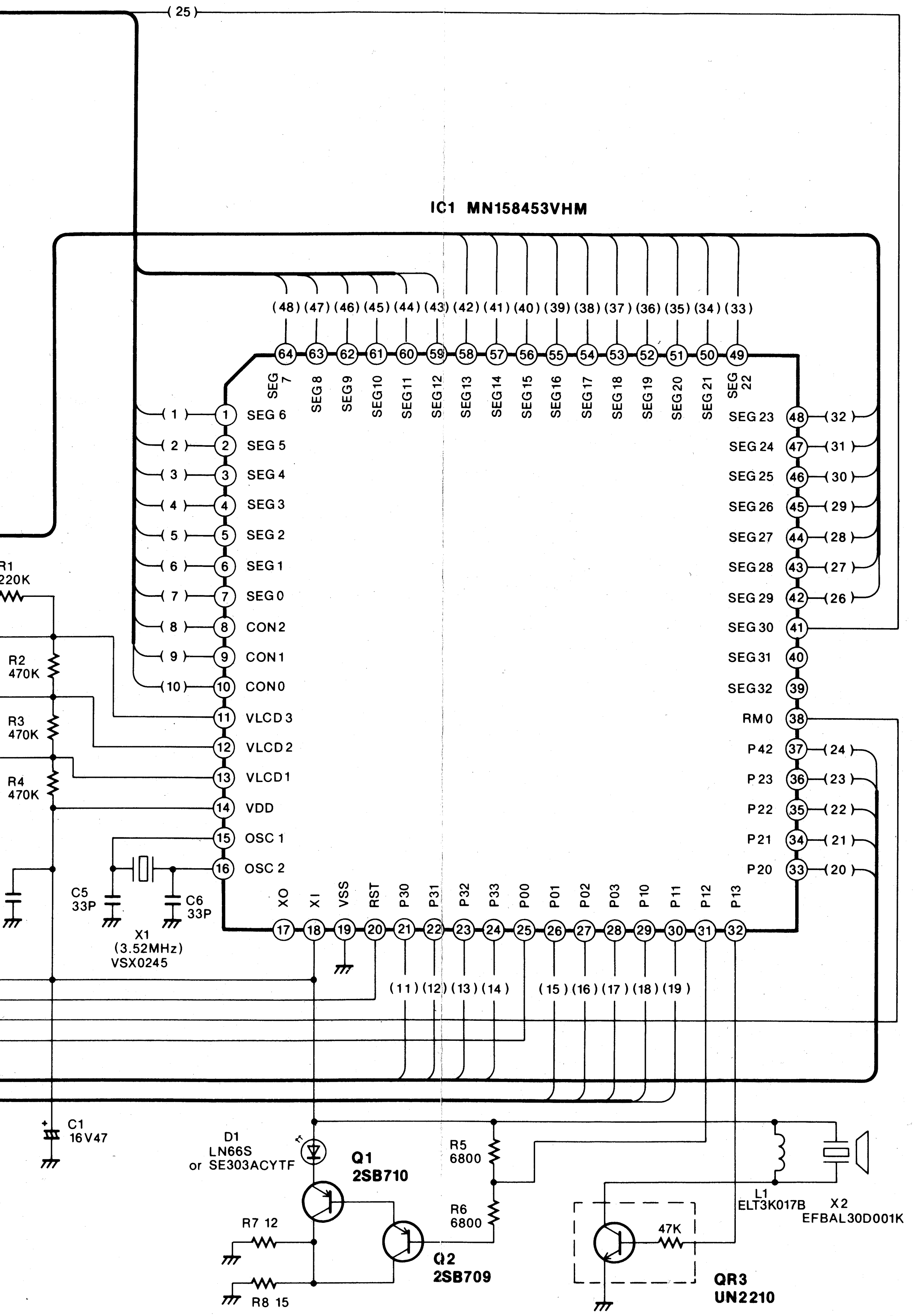
— UNIT NO.: VEQ0936 (NV-L25EG), VEQ0935 (NV-L25B) —



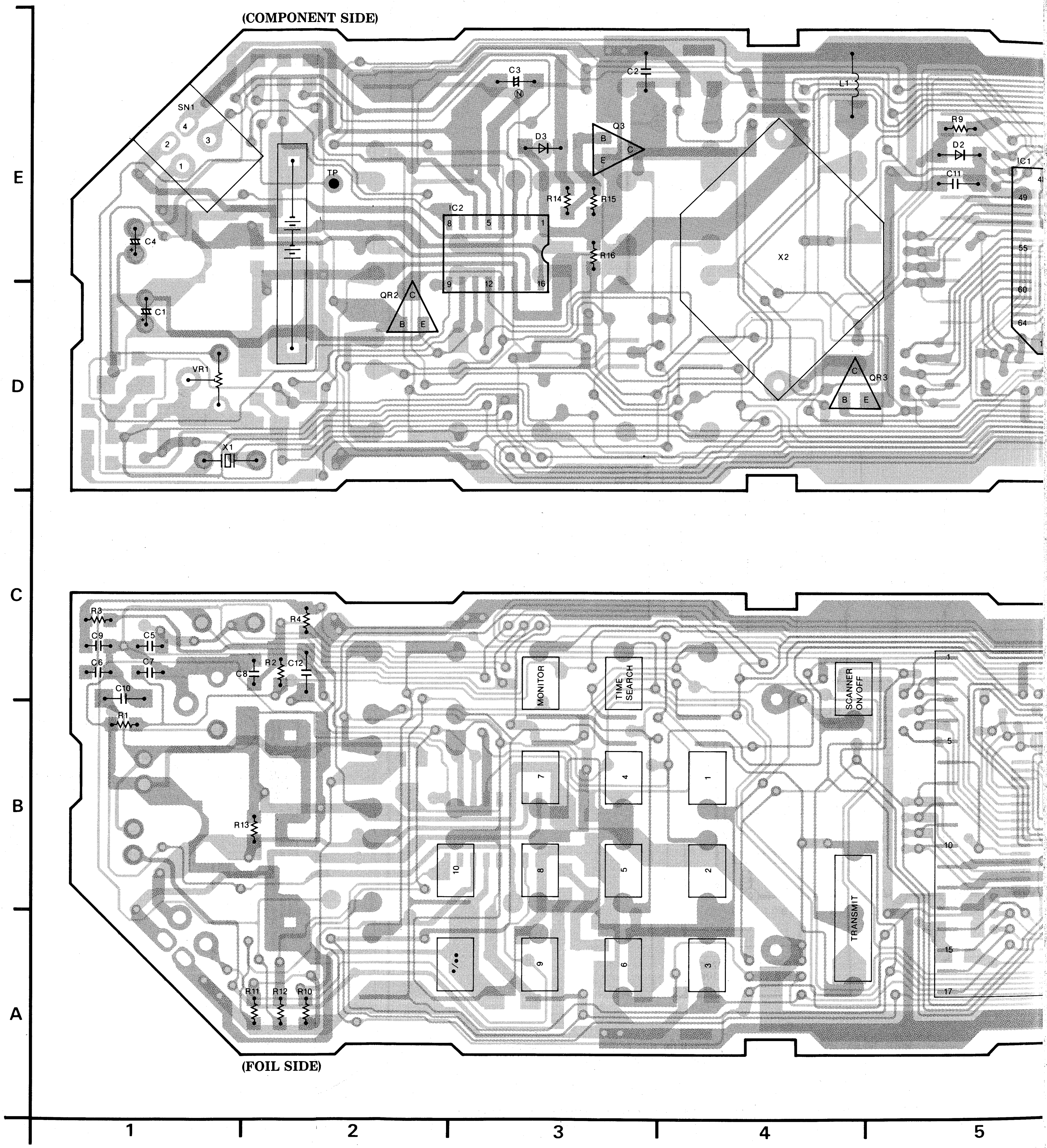
LCD1
VSL0156
SU MO TU WE TH FR SA VTR2
VPS 88 88 M D SP LP
ON 1 2 3 4 OFF
5 6 7 8 9 10 11 12
C1 C2 C3 S11 S30 S29 S28 S27 S26 S25 S24 S23 S22 S21 S20 S19 F18
S1 S2 S3 S4 S5 S6 S7 S8 S9 S10 S11 S12 S13 S14 S15 S16 S17
IC1 MN158453VHM
SEG 6
SEG 5
SEG 4
SEG 3
SEG 2
SEG 1
SEG 0
CON 2
CON 1
CON 0
VLCD 3
VLCD 2
VLCD 1
VDD
OSC 1
OSC 2
XO
XI
VSS
RST
P30
P31
P32
P33
P00
P01
P02
P03
P10
P11
P12
P13
SEG 7
SEG 8
SEG 9
SEG 10
SEG 11
SEG 12
SEG 13
SEG 14
SEG 15
SEG 16
SEG 17
SEG 18
SEG 19
SEG 20
SEG 21
SEG 22
Q3
2SD601
C4
50V1
R14
47K
R15
15K
D3
MA221
BATTERY
SN1
VSQ0567
IC 2
AN8355S
GND
V IN
R IN
V IN+
V IN−
VREF
LED
CS
VDD
PON
V OUT
C+
C−
VR1 30KB
C3
16V4.7
R10
220K
R13
12
C12
0.1
R12
56K
R11
680K
QR2
UN2211
10K
10K
C11
0.1
D2
MA221
R9
2200
(NV-L25B ONLY)
(NV-L25EG ONLY)
P20
P21
P22
P23
P30
P31
P32
P33
P42
D4～D13
D18
MA221×11
D12
D13
D18
D4
D5
D6
D7
D8
D9
D10
D11
REV. PLAY
SLOW DOWN
SLOW
SLOW UP
P11
P10
P03
P02
P01
9
10
•/••
MONITOR
1
2
3
4
5
6
7
8
REC
STILL/ PAUSE
STOP
F. ADV
REW
PLAY
FF
TRANS-MIT
SCANNER ON/OFF
VTR ON/OFF
RESET/ INDEX
MEMO/ SEARCH
CLOCK/ COUNT
TIME SEARCH
R1
220K
C7
0.01
R2
470K
C8
0.01
R3
470K
C9
0.01
R4
470K
C10
0.1
C5
33P
C6
33P
X1
(3.52MHz)
VSX0245
R16
330K
C2
0.1
C1
16V47
D1
LN66S
or SE303ACYTF
Q1
2SB710
Q2
2SB709
R7 12
R8 15
R5
6800
R6
6800
47K
QR3

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

REF. NO. 6800 SERIES

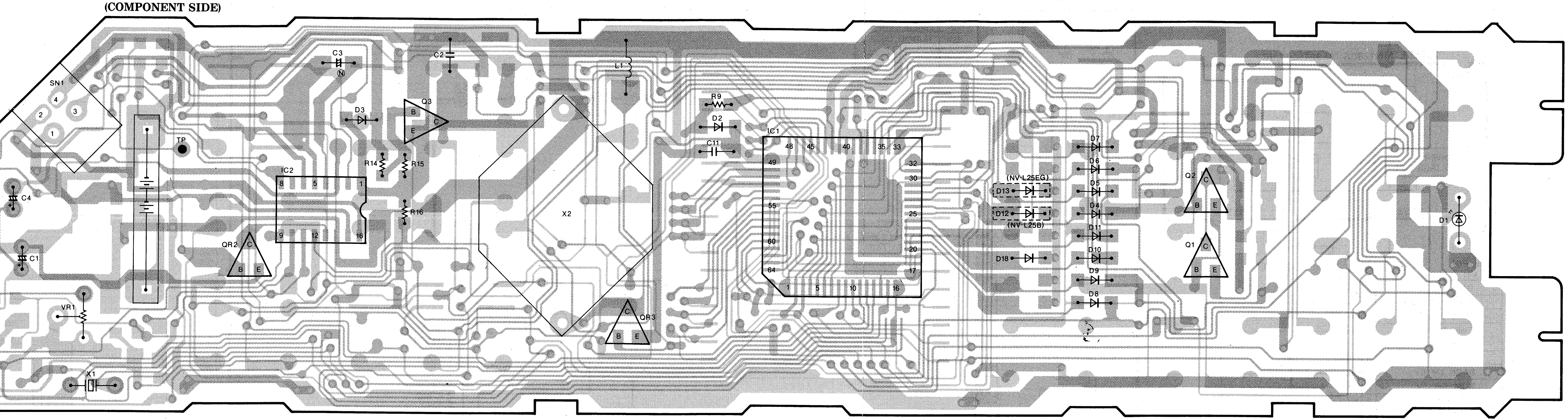

IC1 MN158453VHM
(25)
(48) (47) (46) (45) (44) (43) (42) (41) (40) (39) (38) (37) (36) (35) (34) (33)
64 63 62 61 60 59 58 57 56 55 54 53 52 51 50 49
SEG 7
SEG 8
SEG 9
SEG 10
SEG 11
SEG 12
SEG 13
SEG 14
SEG 15
SEG 16
SEG 17
SEG 18
SEG 19
SEG 20
SEG 21
SEG 22
1 SEG 6
2 SEG 5
3 SEG 4
4 SEG 3
5 SEG 2
6 SEG 1
7 SEG 0
8 CON 2
9 CON 1
10 CON 0
11 VLCD 3
12 VLCD 2
13 VLCD 1
14 VDD
15 OSC 1
16 OSC 2
SEG 23 48 (32)
SEG 24 47 (31)
SEG 25 46 (30)
SEG 26 45 (29)
SEG 27 44 (28)
SEG 28 43 (27)
SEG 29 42 (26)
SEG 30 41
SEG 31 40
SEG 32 39
RM 0 38
P42 37 (24)
P23 36 (23)
P22 35 (22)
P21 34 (21)
P20 33 (20)
XO
XI
VSS
RST
P30
P31
P32
P33
P00
P01
P02
P03
P10
P11
P12
P13
17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32
(11) (12) (13) (14)
(15) (16) (17) (18) (19)
R1 220K
R2 470K
R3 470K
R4 470K
C5 33P
C6 33P
X1 (3.52MHz) VSX0245
C1 16V47
D1 LN66S or SE303ACYTF
Q1 2SB710
Q2 2SB709
R7 12
R8 15
R5 6800
R6 6800
L1 ELT3K017B
X2 EFBAL30D001K
47K
QR3 UN2210

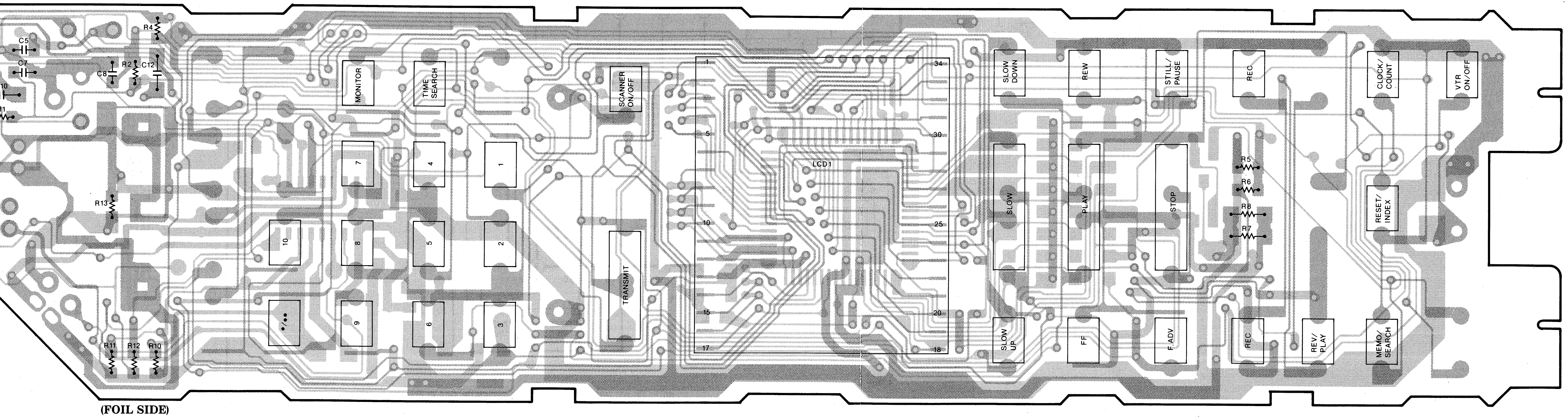
3-34. REMOTE CONTROLLER (BUILD IN DIGITAL SCANNER) C.B.A. (VEP66079G: NV-L


(COMPONENT SIDE)
SN1
TP
C3
C2
L1
D3
Q3
R9
D2
C11
IC1
R14
R15
R16
IC2
X2
C4
C1
QR2
VR1
QR3
X1
R3
C9
C5
C6
C7
C10
R1
R4
C8
R2
C12
MONITOR
TIME SEARCH
SCANNER ON/OFF
R13
TRANSMIT
R11
R12
R10
(FOIL SIDE)
E
D
C
B
A
1
2
3
4
5

IOTE CONTROLLER (BUILD IN DIGITAL SCANNER) C.B.A. (VEP66079G: NV-L25EG) (VEP66079F: NV-L25B)

(COMPONENT SIDE)


SN1
1
2
3
4
C3
C2
Q3
B
E
C
D3
TP
C4
C1
IC2
8
5
1
9
12
16
R14
R15
R16
QR2
VR1
X1
L1
X2
QR3
R9
D2
C11
IC1
48
45
40
35
33
49
32
30
55
25
60
20
64
17
1
5
10
16
(NV-L25EG)
D13
D12
(NV-L25B)
D18
D7
D6
D5
D4
D11
D10
D9
D8
Q2
Q1
D1

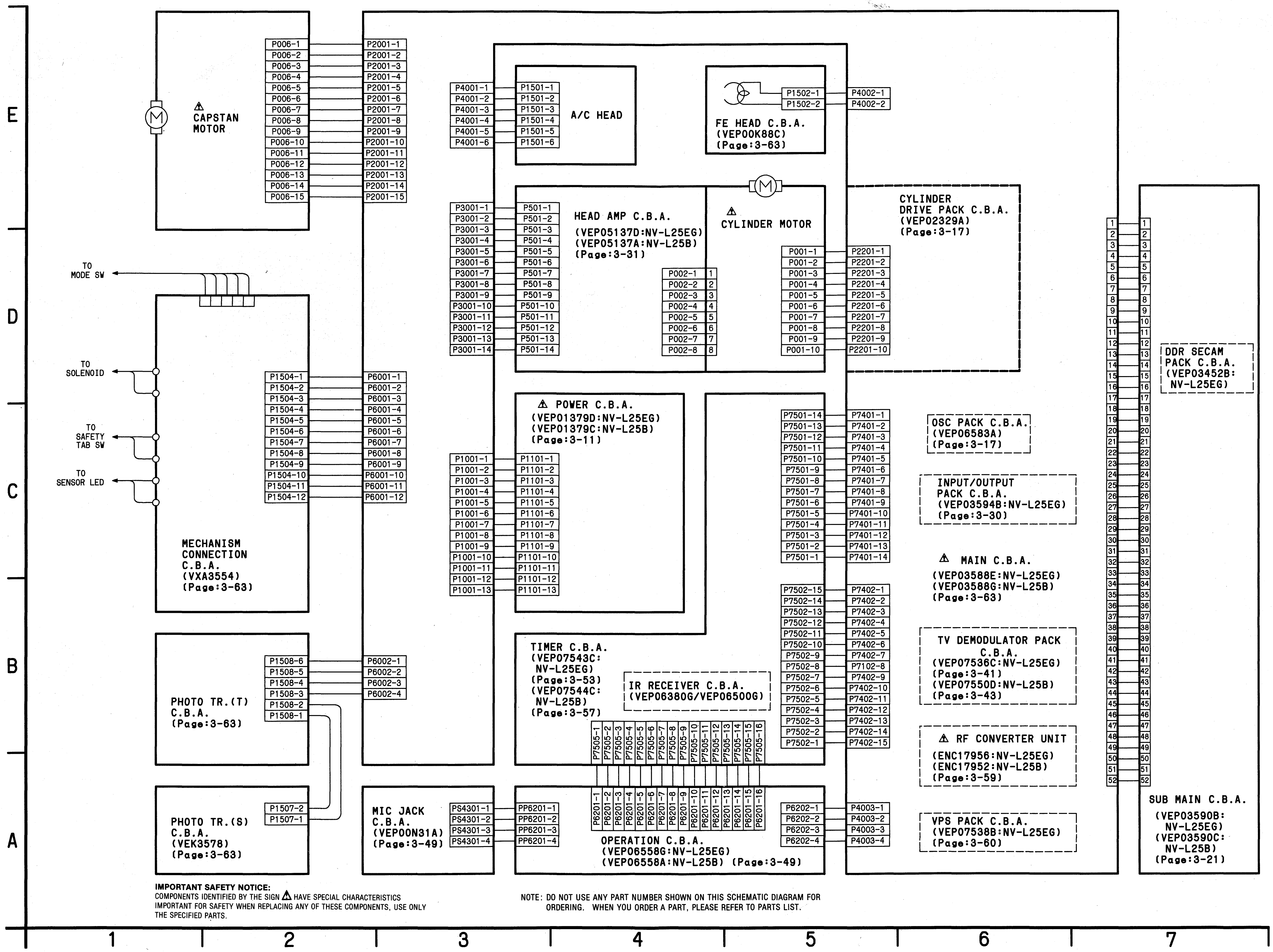

R4
C5
C7
C8
R2
C12
R13
R11
R12
R10
MONITOR
TIME SEARCH
SCANNER ON/OFF
7
4
1
10
8
5
2
TRANSMIT
9
6
3
LCD1
1
5
10
15
17
34
30
25
20
18
SLOW DOWN
REW
STILL/PAUSE
REC
CLOCK/COUNT
VTR ON/OFF
SLOW
PLAY
STOP
R5
R6
R8
R7
RESET/INDEX
SLOW UP
FF
F.ADV
REC
REV/PLAY
MEMO/SEARCH

(FOIL SIDE)

REF. NO. 6800 SERIES

1 2 3 4 5 6 7 8 9

3-35. INTERCONNECTION SCHEMATIC DIAGRAM


CAPSTAN MOTOR
MECHANISM CONNECTION C.B.A. (VXA3554) (Page:3-63)
TO MODE SW
TO SOLENOID
TO SAFETY TAB SW
TO SENSOR LED
PHOTO TR.(T) C.B.A. (Page:3-63)
PHOTO TR.(S) C.B.A. (VEK3578) (Page:3-63)
MIC JACK C.B.A. (VEP00N31A) (Page:3-49)
A/C HEAD
FE HEAD C.B.A. (VEP00K88C) (Page:3-63)
HEAD AMP C.B.A. (VEP05137D:NV-L25EG) (VEP05137A:NV-L25B) (Page:3-31)
CYLINDER MOTOR
CYLINDER DRIVE PACK C.B.A. (VEP02329A) (Page:3-17)
POWER C.B.A. (VEP01379D:NV-L25EG) (VEP01379C:NV-L25B) (Page:3-11)
TIMER C.B.A. (VEP07543C: NV-L25EG) (Page:3-53) (VEP07544C: NV-L25B) (Page:3-57)
IR RECEIVER C.B.A. (VEP06380G/VEP06500G)
OPERATION C.B.A. (VEP06558G:NV-L25EG) (VEP06558A:NV-L25B) (Page:3-49)
OSC PACK C.B.A. (VEP06583A) (Page:3-17)
INPUT/OUTPUT PACK C.B.A. (VEP03594B:NV-L25EG) (Page:3-30)
MAIN C.B.A. (VEP03588E:NV-L25EG) (VEP03588G:NV-L25B) (Page:3-63)
TV DEMODULATOR PACK C.B.A. (VEP07536C:NV-L25EG) (Page:3-41) (VEP07550D:NV-L25B) (Page:3-43)
RF CONVERTER UNIT (ENC17956:NV-L25EG) (ENC17952:NV-L25B) (Page:3-59)
VPS PACK C.B.A. (VEP07538B:NV-L25EG) (Page:3-60)
DDR SECAM PACK C.B.A. (VEP03452B: NV-L25EG)
SUB MAIN C.B.A. (VEP03590B: NV-L25EG) (VEP03590C: NV-L25B) (Page:3-21)
E
D
C
B
A
1
2
3
4
5
6
7

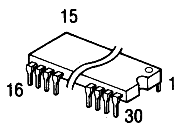
IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED BY THE SIGN ⚠ HAVE SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SPECIFIED PARTS.

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

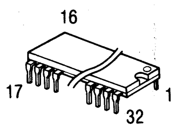
Back Page:
INTERCONNECTION Section

3-36. ICs & TRs INFORMATION

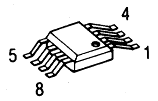
GENERAL CIRCUIT PARTS



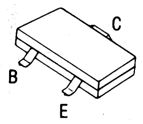
AN3495K
M51366SP



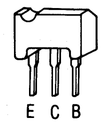
BA7274S
BA7766AS



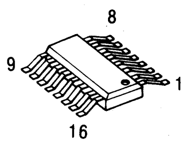
BA6305F



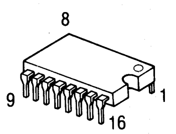
2SA1034
2SB709
2SB710
2SC2295
2SC2405
2SD1328
2SD601
2SD602



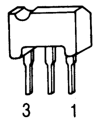
2SB643
2SB790
2SD1330
2SD637
2SD638
2SD973
2SC2206
2SC2377



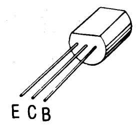
MC14053BF
CF77384NS



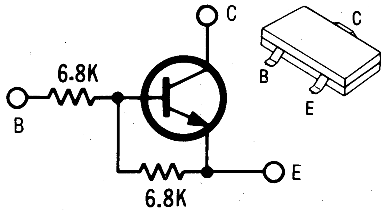
AN5043
MN1226



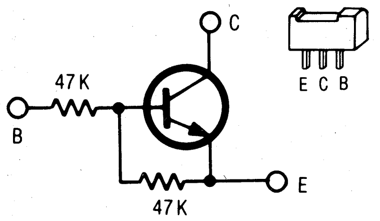
MN1280L
MN1280S
MN12261



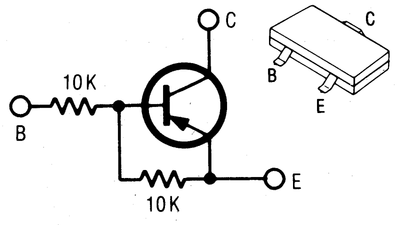
2SD893
2SC1047


C
6.8K
B
E
6.8K
C
B
E

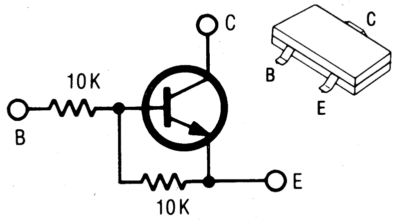
DTC363EK


C
47K
B
E
47K
E C B

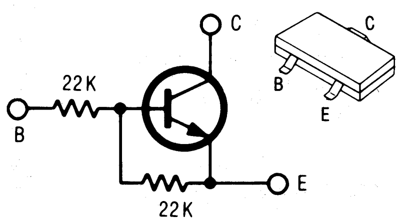
DTC144EA
UN1213


C
10K
B
E
10K
C
B
E

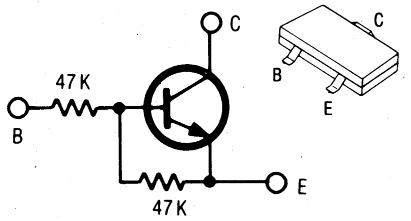
UN2111
DTA114EK


C
10K
B
E
10K
C
B
E

UN2211
DTC114EK

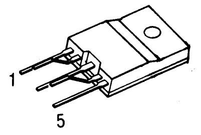

C
22K
B
E
22K
C
B
E

UN2212
DTC124EK

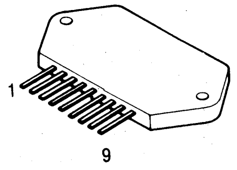

C
47K
B
E
47K
C
B
E

UN2213
DTC144EK

POWER Section



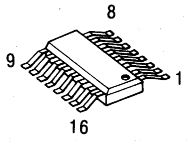
STRD1816



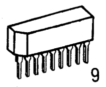
STK5392

Back Page:
INTERCONNECTION Section

TV DEMODULATOR PACK

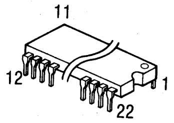


MN4066BS



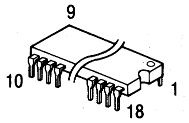
AN5421

INPUT/OUTPUT PACK (NV-L25EG)

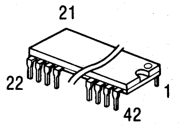


LA7150

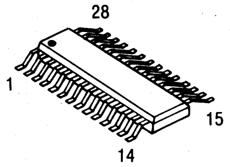
VPS PACK (NV-L25EG)



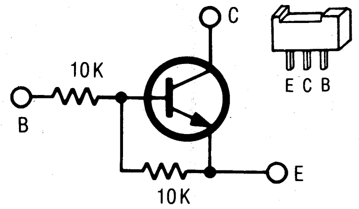
SAA4700



MN158413VHW

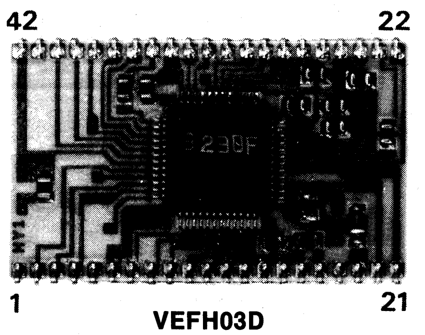


MN15522VMS

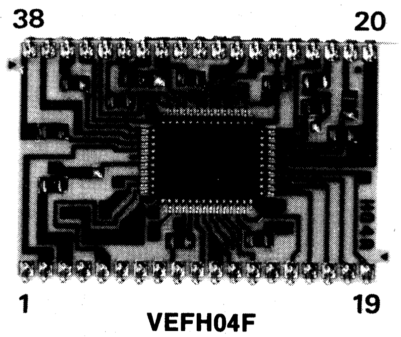

C
10K
B
E
10K
E C B

DTC114EA
UN1211

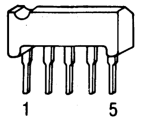
SUB MAIN



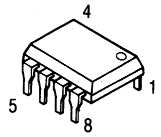
VEFH03D



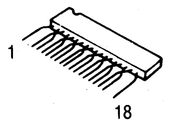
VEFH04F



BA7004

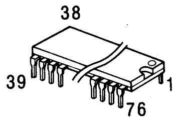


MSM6965-3RS



BA7025L

SERVO & SYSTEM CONTROL Section



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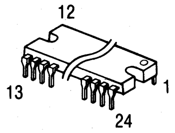
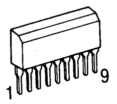


BA6435S



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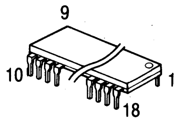
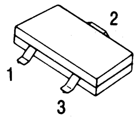
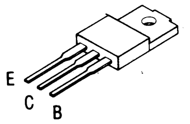


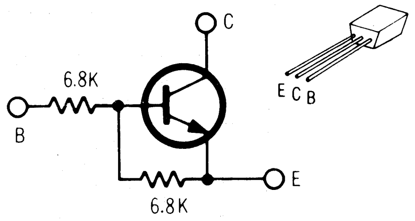
AN3814K



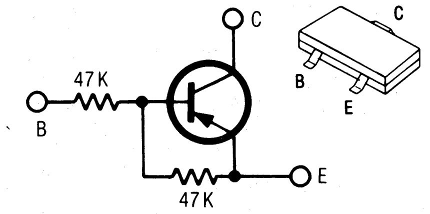
MN12821



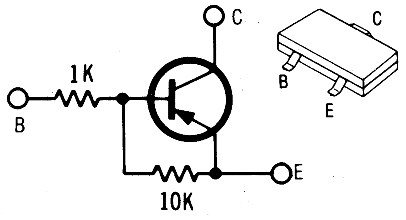
2SD1273


C
6.8K
B
E
6.8K
E C B

2SD1676

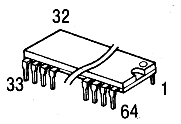

C
47K
B
E
47K
C
B
E

UN2113
DTA144EK

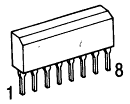

C
1K
B
E
10K
C
B
E

UN2119
DTA113ZK

TIMER



M37422V4AF
MN187125VHP



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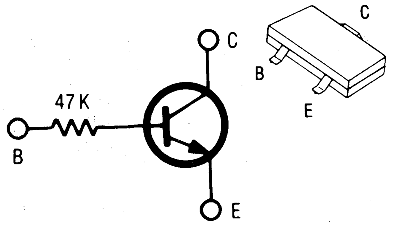
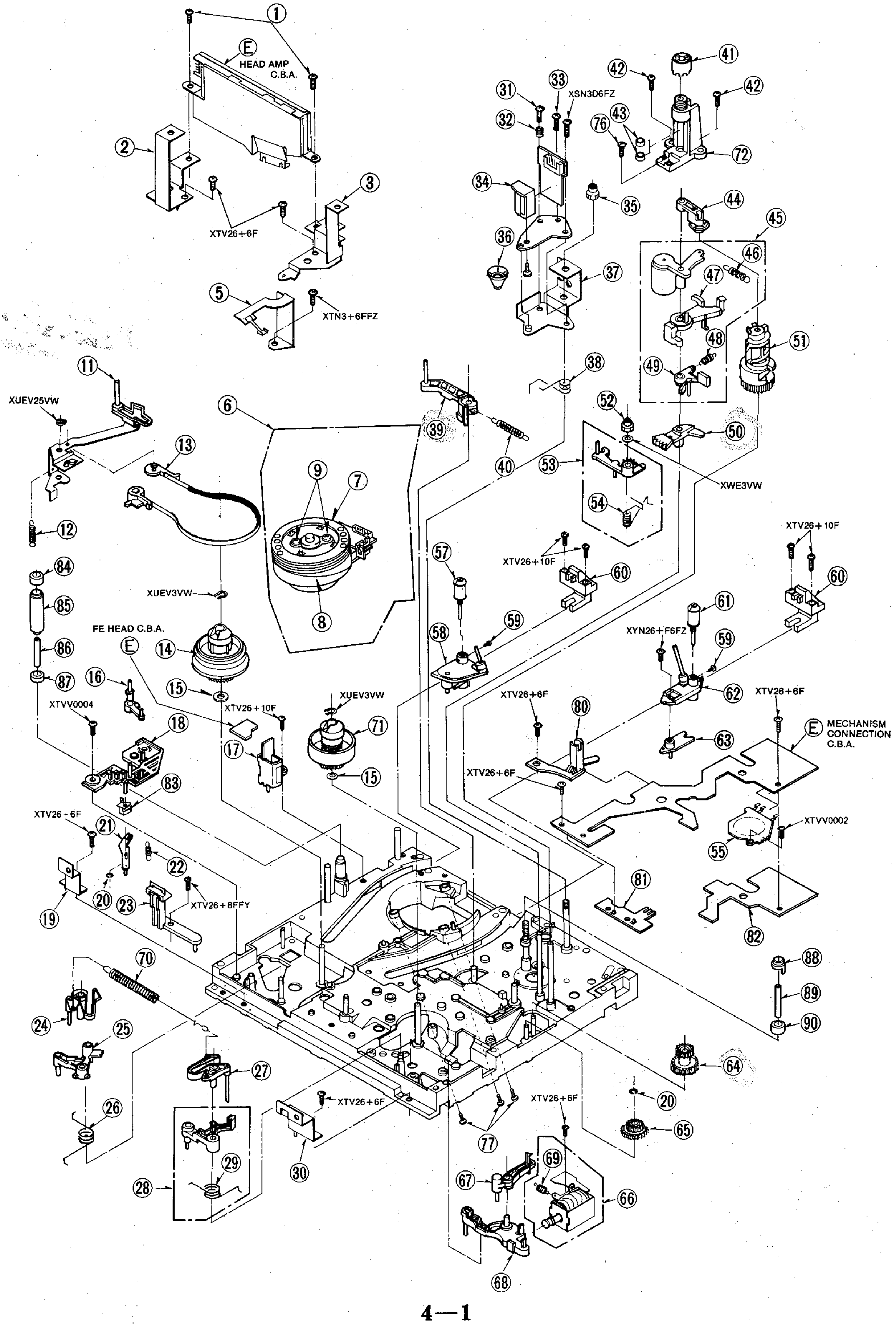


UN2216
DTC143TK

SECTION 4
EXPLODED VIEWS & PARTS LIST

4-1. EXPLODED VIEW ❶ CHASSIS PARTS SECTION (1)



①
Ⓔ HEAD AMP C.B.A.
②
③
XTV26+6F
⑤
XTN3+6FFZ
㉛
㉜
㉝
XSN3D6FZ
㉞
㉟
㊱
㊲
㊳
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㊵
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㊷
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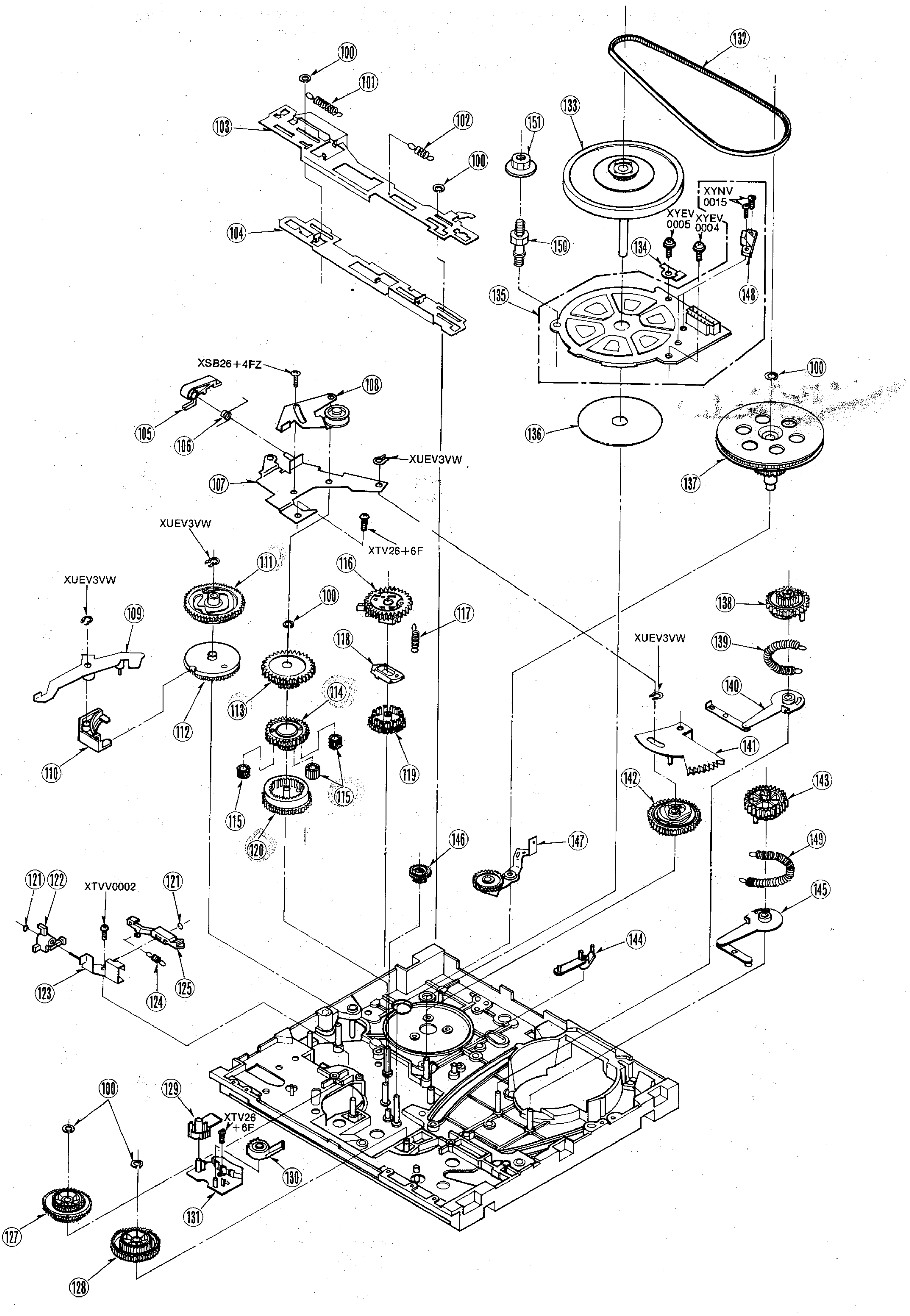
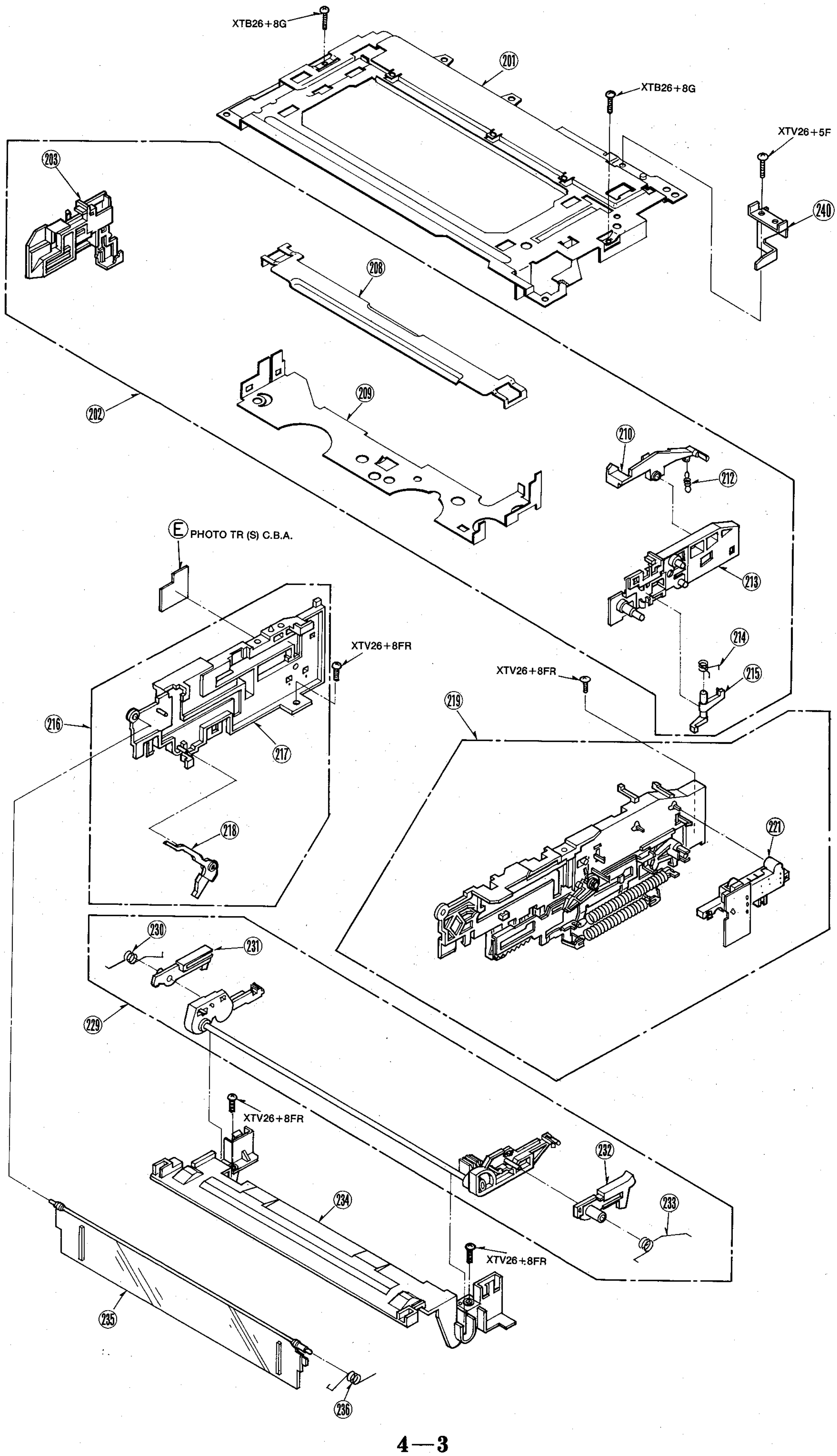
(76)
(72)
㊹
㊺
㊻
㊼
㊽
㊾
(51)
(50)
(52)
(53)
(54)
XWE3VW
⑪
XUEV25VW
⑫
⑬
⑥
⑦
⑧
⑨
XUEV3VW
⑭
⑮
FE HEAD C.B.A.
Ⓔ
⑯
⑰
⑱
XTV26+10F
XTVV0004
(83)
(84)
(85)
(86)
(87)
(57)
(58)
(59)
(60)
XTV26+10F
(61)
XYN26+F6FZ
(62)
(63)
XTV26+6F
(80)
(71)
XUEV3VW
Ⓔ MECHANISM CONNECTION C.B.A.
XTVV0002
(55)
(81)
(82)
(88)
(89)
(90)
XTV26+6F
㉑
⑳
⑲
㉒
㉓
XTV26+8FFY
(70)
㉔
㉕
㉖
㉗
㉘
㉙
㉚
(64)
(65)
(66)
(67)
(68)
(69)
(77)

❷ CHASSIS PARTS SECTION (2)

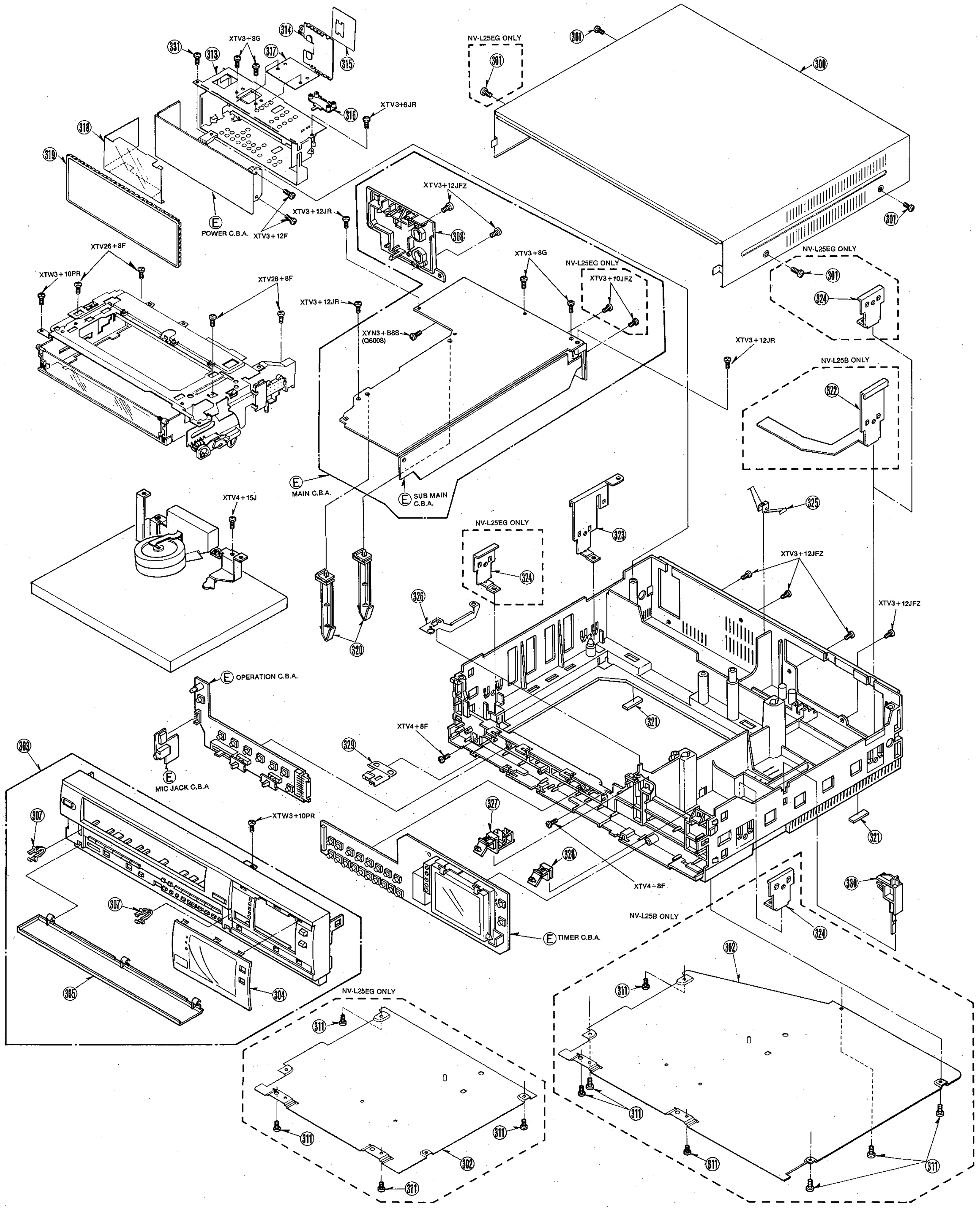


100
101
102
103
104
132
133
151
150
XYNV 0015
XYEV 0005
XYEV 0004
134
148
135
100
XSB26+4FZ
108
105
106
136
137
XUEV3VW
107
XTV26+6F
XUEV3VW
111
116
XUEV3VW
100
117
109
118
138
XUEV3VW
139
112
113
114
140
141
110
119
115
115
120
142
143
146
147
149
121
122
XTVV0002
121
145
144
123
125
124
100
129
XTV26 +6F
130
131
127
128

❸ CASSETTE UP MECHANISM SECTION

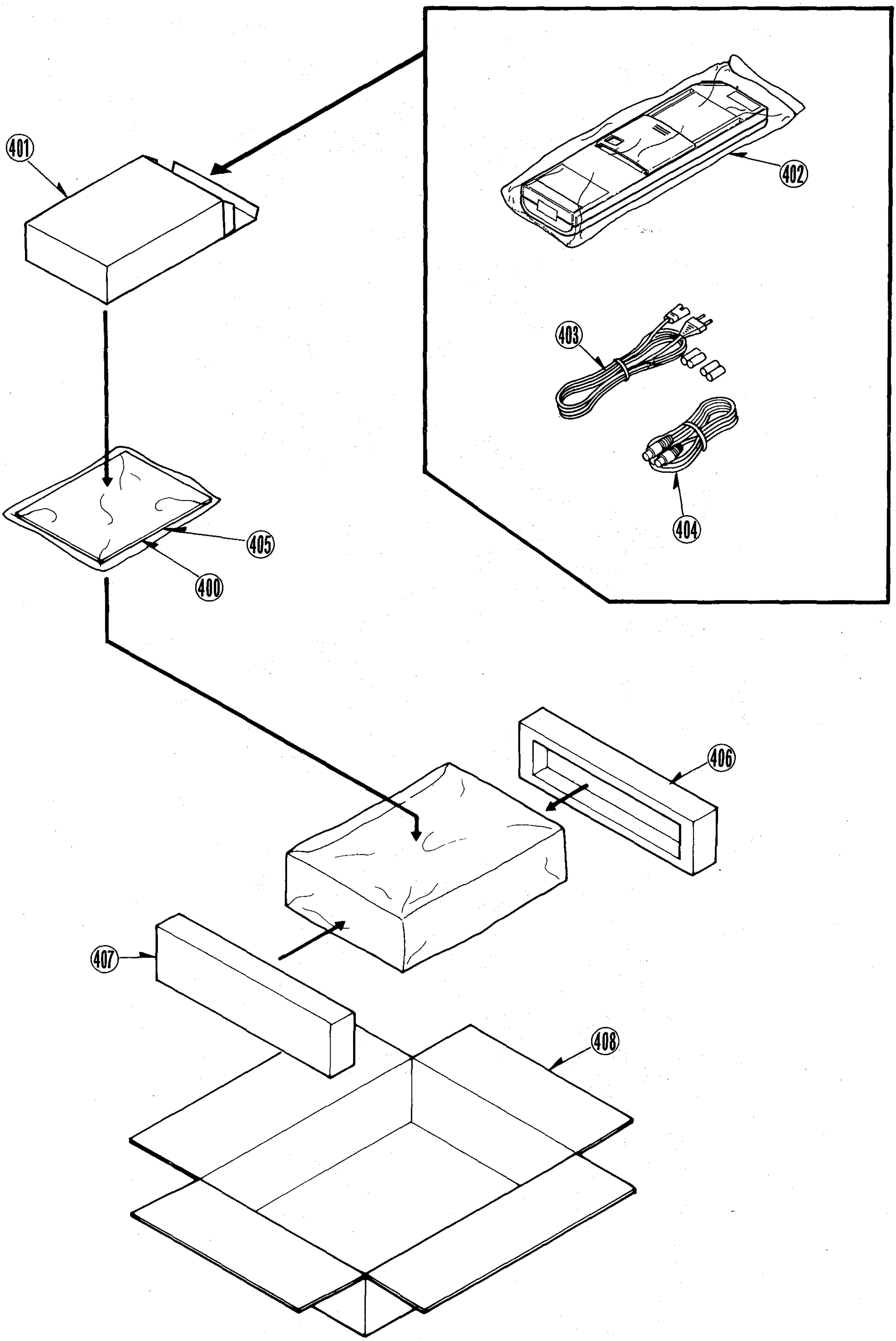

XTB26+8G
201
XTB26+8G
XTV26+5F
240
203
208
202
209
210
212
213
Ⓔ PHOTO TR (S) C.B.A.
XTV26+8FR
214
XTV26+8FR
215
219
216
217
218
221
230
231
229
XTV26+8FR
232
233
234
XTV26+8FR
235
236

❹ CASING PARTS SECTION

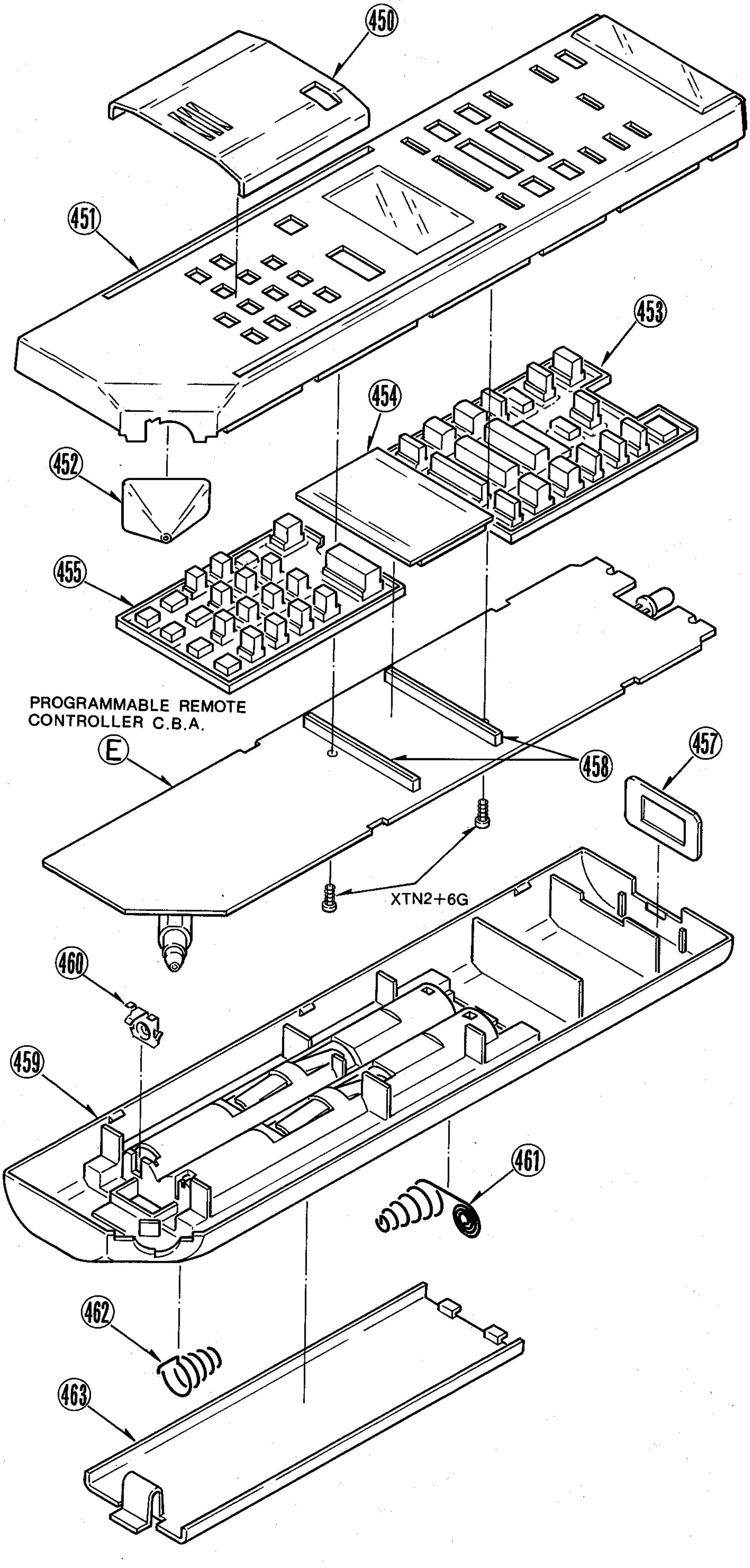


NV-L25EG ONLY
301
300
331
313
XTV3+8G
314
317
315
316
XTV3+8JR
318
319
POWER C.B.A.
XTV3+12F
XTV3+12JR
XTV3+12JFZ
308
XTV26+8F
XTW3+10PR
XTV26+8F
XTV3+8G
NV-L25EG ONLY
XTV3+10JFZ
XTV3+12JR
XYN3+B8S (Q6008)
324
XTV3+12JR
NV-L25B ONLY
322
MAIN C.B.A.
SUB MAIN C.B.A.
XTV4+15J
325
323
NV-L25EG ONLY
324
XTV3+12JFZ
XTV3+12JFZ
326
320
OPERATION C.B.A.
321
XTV4+8F
329
303
MIC JACK C.B.A.
XTW3+10PR
307
327
328
321
XTV4+8F
330
307
NV-L25B ONLY
TIMER C.B.A.
324
302
305
304
NV-L25EG ONLY
311
311
311
311
311
302
311
311
311
311
E

❺ PACKING PARTS SECTION


401
402
403
404
405
400
406
407
408

❻ REMOTE CONTROLLER (BUILD IN DIGITAL SCANNER) UNIT


450
451
453
454
452
455
PROGRAMMABLE REMOTE CONTROLLER C.B.A.
E
458
457
XTN2+6G
460
459
461
462
463

ORDER NO. VRD8902M109
(Date of issue: FEB., 1989)

PARTS LIST

MODEL NO.: NV-L25EG/B

1. NV-L25EG/B Mechanical Replacement Parts List

*This parts list is detachable from the manual.

Note:1.* Be sure to make your orders of replacement parts according to this list.
2.IMPORTANT SAFETY NOTICE
Components identified with the mark <!> have the special characteristics for safety. When replacing any of these components,use only the same type.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
**********		NV-L25EG/B			
1(1)		VHD0141	HEAD AMP SET SCREW	2	
2(1)		VMA6897	HEAD AMP MOUNT ANGLE (L)	1	
3(1)		VMA6898	HEAD AMP MOUNT ANGLE (R)	1	
5(1)		VXS0082	EARTH PLATE UNIT	1	
6(1)		VEG0724	CYLINDER UNIT	1	<!>
7(1)		VEH0385	UPPER CYLINDER UNIT	1	<!>
8(1)		VJR0082	RT TERMINAL	1	
10(1)		VHD0425	UPPER CYLINDER SET SCREW	2	
11(1)		VXL1495	TENSION ARM (1) UNIT	1	
12(1)		VMB1563	TENSION SPRING	1	
13(1)		VXZ0267	TENSION BAND UNIT	1	
14(1)		VXR0145	SUPPLY REEL TABLE UNIT	1	
15(1)		VMX1171	REEL WASHER (0.5mm)	2	
15(1)		VMX1239	REEL WASHER (0.3mm)	2	
15(1)		VMX1238	REEL WASHER (0.2mm)	2	
16(1)		VXL1496	TENSION RELEASE ARM(A)UNIT	1	
17(1)		VBS0038	FE HEAD	1	
18(1)		VXA2705	TENSION ARM BASE (1) UNIT	1	
19(1)		VMA6895	MOUNT ANGLE (L)	1	
20(1)		VMX1079	CUT WASHER	2	
21(1)		VXL1497	TENSION RELEASE ARM(B)UNIT	1	
22(1)		VMB1582	TENSION RELEASE SPRING	1	
23(1)		VES0489	SAFETY SW	1	
24(1)		VXZ0259	SUPPLY MAIN BRAKE UNIT	1	
25(1)		VXZ0274	SUPPLY SOFT BRAKE(1)UNIT	1	
26(1)		VMB1564	SUPPLY SOFT BRAKE SPRING	1	
27(1)		VXZ0262	TAKE UP MAIN BRAKE UNIT	1	
28(1)		VXZ0221	TAKE UP SOFT BRAKE UNIT	1	
29(1)		VMB1561	TAKE UP SOFT BRAKE SPRING	1	
30(1)		VMA6896	MOUNT ANGLE (R)	1	
31(1)		VHD0322	ADJUST SCREW	1	
32(1)		VMB1251	ADJUST SPRING	1	
33(1)		VHD0089B	AZIMUTH ADJUST SCREW	1	
34(1)		VBR0132	A/C HEAD	1	
35(1)		VHN0063	M4 NYLON NUT	1	
36(1)		VHN0110	ADJUST NUT	1	
37(1)		VMA7831	HEAD BASE	1	
38(1)		VMB1567	A/C HEAD SPRING	1	
39(1)		VXL1857	SUB LOADING ARM (1) UNIT	1	
40(1)		VMB1566	SUB POST SPRING	1	
41(1)		VXQ0006	THRUST SCREW UNIT	1	
42(1)		VHD0317	HOUSING SCREW	2	
43(1)		VMX1033	OIL SEAL	2	
44(1)		VMX1353	PINCH CAM CAP	1	
45(1)		VXL1858	PRESSURE ROLLER UNIT	1	
46(1)		VMB1941	PIN PRESSURE SPRING	1	
47(1)		VML2232	PINCH PRESSURE ARM	1	
48(1)		VMB1569	PINCH PRESSURE ARM RELEASE	1	
			SPRING		
49(1)		VML1874	PINCH LIFT ARM	1	
50(1)		VDG0357	P5 PULL OUT SECTOR GEAR	1	
51(1)		VDG0421	PINCH CAM	1	
52(1)		VHN0023	M3 NYLON NUT	1	
53(1)		VXL1485	P5 UNIT	1	
54(1)		VMB1554	P5 SPRING	1	
55(1)		VSS0175	MODE SW	1	
57(1)		VXP0863	ROLLER POST UNIT	1	
58(1)		VXA2729	INCLIND BASE (S)(1)UNIT	1	
59(1)		VHD0133	ROLLER POST SCREW	2	
60(1)		VMD0910	POST STOPPER	2	
61(1)		VXP0764A	ROLLER POST UNIT	1	
62(1)		VXA2686	INCLIND BASE(T)(1)UNIT	1	
63(1)		VXA2687	INCLIND ADJUST PLATE UNIT	1	
64(1)		VDG0483	PINCH SPEED DOWN GEAR	1	
65(1)		VDG0332	CONNECTION GEAR	1	
66(1)		VXA3735	SOLENOID UNIT	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
67(1)		VXA2692	KICK ROD UNIT	1	
68(1)		VML1849	SOLENOID LEVER (1) UNIT	1	
69(1)		VMB1553	KICK ROD SPRING	1	
70(1)		VMB1958	MAIN BRAKE SPRING	1	
71(1)		VXR0146	TAKE UP REEL TABLE UNIT	1	
72(1)		VXD0101	HOUSING UNIT	1	
76(1)		VHD0374	HOUSING SCREW	1	
77(1)		VHD0342	CYLINDER SCREW	3	
80(1)		VMD0911	LED HOLDER	1	
81(1)		VMA7844	REINFORCEMENT PLATE (F)	1	
82(1)		VMA7845	REINFORCEMENT PLATE (R)	1	
83(1)		VMB1733	LEAF SPRING	1	
84(1)		VMX1088	SUPPLY UPPER LIMITER	1	
85(1)		VDP1072	SUPPLY ROLLER	1	
86(1)		VMX1581	P1 COLLAR	1	
87(1)		VMX1533	SUPPLY ROLLER LIMITER	1	
88(1)		VMX1544	P4 UPPER LIMITER	1	
89(1)		VMX1568	P4 SLEEVE	1	
90(1)		VMX1534	P4 LOWER LIMITER	1	
100(2)		VMX1079	CUT WASHER	5	
101(2)		VMB1583	TAKE UP SOFT BRAKE RELEASE	1	
			ARM SPRING		
102(2)		VMB1560	MAIN LEVER SPRING	1	
103(2)		VXA3509	MAIN LEVER (1) UNIT	1	
104(2)		VMM0215	SUB LEVER	1	
105(2)		VXL1873	SS BRAKE ARM UNIT	1	
106(2)		VMB1588	SS BRAKE SPRING	1	
107(2)		VXA3512	SS BRAKE BASE (1) UNIT	1	
108(2)		VXA3516	TENSION ROLLER UNIT	1	
109(2)		VXL1632	CAM FOLLOWER ARM UNIT	1	
110(2)		VML1861	DETENT ARM	1	
111(2)		VDG0574	MAIN CAM GEAR	1	
112(2)		VDG0343	SUB CAM GEAR	1	
113(2)		VDG0348	CENTRE GEAR	1	
114(2)		VDG0422	RETAINER GEAR	1	
115(2)		VDG0345	PLANET GEAR	3	
116(2)		VDG0547	CLUTCH DISK	1	
117(2)		VMB1558	CLUTCH SPRING	1	
118(2)		VDG0350	LOCK SLIDE GEAR	1	
119(2)		VDG0335	DRIVE DISK	1	
120(2)		VDG0342	RING GEAR	1	
121(2)		VMX0967	CUT WASHER	2	
122(2)		VML1859	CHANGE LEVER	1	
123(2)		VXA2672	RELEASE LEVER (1) UNIT	1	
124(2)		VMB1557	RELEASE SPRING	1	
125(2)		VML1860	RELEASE LEVER	1	
127(2)		VXP1002	TAKE UP REEL GEAR UNIT	1	
128(2)		VDG0445	SUPPLY REEL GEAR	1	
129(2)		VML1858	RETURN LEVER (R)	1	
130(2)		VML1857	RETURN LEVER (L)	1	
131(2)		VMD0913	STOPPER BASE	1	
132(2)		VDV0169	TIMING BELT	1	
133(2)		VXP0777	ROTOR UNIT	1	
134(2)		VMA7941	ROTOR STOPPER	1	
135(2)		VEK4105	STATOR UNIT	1	<!>
136(2)		VMA6847	SUB PLATE	1	
137(2)		VXP0917	CENTRE PULLEY UNIT	1	
138(2)		VDG0564	LOADING GEAR (T)	1	
139(2)		VMB1555	LOADING SPRING (T)	1	
140(2)		VXL1489	LOADING ARM (T)(1) UNIT	1	
141(2)		VXA3515	SECTOR GEAR UNIT	1	
142(2)		VDG0448	LOADING CAM GEAR	1	
143(2)		VDG0419	LOADING GEAR (S)	1	
144(2)		VML1855	PLAY CONTROL ARM	1	
145(2)		VXL1487	LOADING ARM (S)(1) UNIT	1	
146(2)		VDG0546	INTERMEDIATE GEAR	1	
147(2)		VXL1861	PLAY ARM UNIT	1	
148(2)		VBK0048	FG HEAD	1	
149(2)		VMB1746	LOADING SPRING(S)	1	
150(2)		VHD0431	STATOR SPACER SCREW	1	
151(2)		VHN0102	STATOR UNIT	1	
201(3)		VMA7223	TOP PLATE	1	
202(3)		VXA3765	CASSETTE HOLDER UNIT	1	
203(3)		VXA3766	HOLDER GUIDE (L) UNIT	1	
208(3)		VXA3494	HOLDER ANGLE UNIT	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
209(3)		VMA8036	CASSETTE HOLDER	1	
210(3)		VML1882	OPENER LEVER	1	
212(3)		VMB1584	OPENER LEVER SPRING	1	
213(3)		VMD1352	HOLDER GUIDE (R)	1	
214(3)		VMB1576	RELEASE SPRING	1	
215(3)		VML1881	RELEASE LEVER	1	
216(3)		VXA2676	SIDE PLATE (L) UNIT	1	
217(3)		VMD0917	SIDE PLATE (L)	1	
218(3)		VML1880	OPENER LEVER	1	
219(3)		VXA3495	SIDE PLATE (R) UNIT	1	
221(3)		VXA3498	SLIDE SW UNIT	1	
229(3)		VXP0987	MAIN SHAFT UNIT	1	
230(3)		VMB1836	SUB WIPER SPRING (L)	1	
231(3)		VML1878	SUB WIPER ARM (L)	1	
232(3)		VML1879	SUB WIPER ARM (R)	1	
233(3)		VMB1837	SUB WIPER SPRING (R)	1	
234(3)		VMA6900	CASSETTE GUIDE	1	
235(3)		VKF1212	BLINDER PANEL	1	
236(3)		VMB1258	BLINDER SPRING	1	
240(3)		VMA7224	CASSETTE HOLDER ANGLE	1	
300(4)		VYP2622	TOP PANEL UNIT	1	NV-L25EG
					[SUPPLIED FROM M.B.V]
300(4)		VYP2602	TOP PANEL UNIT	1	NV-L25B
					[SUPPLIED FROM M.B.V]
301(4)		VHD0304	TOP PANEL SCREW	4	NV-L25EG
301(4)		VHD0304	TOP PANEL SCREW	2	NV-L25B
302(4)		VKU0309	BOTTOM PLATE	1	NV-L25EG
					[SUPPLIED FROM M.B.V]
302(4)		VKU0245	BOTTOM PLATE	1	NV-L25B
					[SUPPLIED FROM M.B.V]
303(4)		VYP2642	FRONT PANEL UNIT	1	NV-L25EG
					[SUPPLIED FROM M.B.V]
303(4)		VYP2641	FRONT PANEL UNIT	1	NV-L25B
					[SUPPLIED FROM M.B.V]
304(4)		VKW1100	FRONT DISPLAY PLATE	1	
305(4)		VYF1342	FRONT DOOR UNIT	1	[SUPPLIED FROM M.B.V]
307(4)		VGQ0550	DOOR LOCK PIECE	2	
308(4)		VEJ0793	ANT. TERMINAL PLATE	1	NV-L25EG
					[SUPPLIED FROM M.B.V]
308(4)		VEJ0792	ANT. TERMINAL PLATE	1	NV-L25B
					[SUPPLIED FROM M.B.V]
311(4)		VHD0059	BOTTOM PLATE SCREW	7	NV-L25EG
311(4)		VHD0059	BOTTOM PLATE SCREW	4	NV-L25B
313(4)		VXA3635	POWER SHIELD CASE(MAIN)UNIT	1	
314(4)		VSC2351	POWER SHIELD COVER (TOP)	1	
315(4)		VGH1476	NAME PLATE	1	
316(4)		VGQ1377	IC. HOLDER	1	
317(4)		VMZ1224	INSULATION SHEET	1	
318(4)		VMZ1140	SW BARRIER(A)	1	
319(4)		VSC2237	POWER SHIELD COVER(BOTTOM)	1	
320(4)		VKC0357	MAIN HINGE	2	
321(4)		VKA0084	RUBBER FOOT	2	
322(4)		VMP1994	TOP HOLDER ANGLE (RR)	1	NV-L25B
323(4)		VMP1995	TOP HOLDER ANGLE (RL)	1	
324(4)		VMP1037	TOP HOLDER ANGLE (L)	3	NV-L25EG
325(4)		VMC0461	THUNDER EARTH SPRING	1	
326(4)		VMA7949	EARTH ANGLE	1	
327(4)		VKC0327	TIMER HINGE (A)	1	
328(4)		VKC0328	TIMER HINGE (B)	1	
329(4)		VMC0460	EARTH SPRING	1	
330(4)		VJF0707	MAIN C.B.A. HOLDER	1	
331(4)		VHD0141	MAIN SCREW	1	
400(5)		VQT3088	OPERATING INSTRUCTIONS	1	<!>NV-L25EG
			(ENGLISH/GERMAN/GREEK)		[SUPPLIED FROM M.B.V]
400(5)		VQT3087	OPERATING INSTRUCTIONS	1	<!>NV-L25B
			(ENGLISH)		[SUPPLIED FROM M.B.V]
401(5)		VPK0825	ACCESSORIES BOX	1	[SUPPLIED FROM M.B.V]
402(5)		VEQ0936	REMOTE CONTROL UNIT	1	NV-L25EG
			(BUILD IN DIGITAL SCANNER)		
402(5)		VEQ0935	REMOTE CONTROL UNIT	1	NV-L25B
			(BUILD IN DIGITAL SCANNER)		
403(5)		VJA0443	AC POWER CORD	1	<!>NV-L25EG
403(5)		VJA0445	AC POWER CORD	1	<!>NV-L25B
404(5)		VJA0376	DIN RF CABLE	1	
405(5)		VQC1315	PROGRAMME SHEET	1	NV-L25EG

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
405(5)		VQC1330	PROGRAMME SHEET	1	NV-L25B
406(5)		VPN2356	CUSHION (R)	1	[SUPPLIED FROM M.B.V]
407(5)		VPN2357	CUSHION (L)	1	[SUPPLIED FROM M.B.V]
408(5)		VPG4597	PACKING	1	NV-L25EG
					[SUPPLIED FROM M.B.V]
408(5)		VPG4596	PACKING	1	NV-L25B
					[SUPPLIED FROM M.B.V]
450(6)		VKF1201	SLIDING LID	1	
451(6)		VYK2467	TOP COVER UNIT	1	NV-L25EG
451(6)		VYK2468	TOP COVER UNIT	1	NV-L25B
452(6)		VGQ1640	SENSOR CAP	1	
453(6)		VSP0417	RUBBER CONTACT (A)	1	
454(6)		VSL0156	LCD	1	
455(6)		VSP0404	RUBBER CONTACT (B)	1	
457(6)		VKW0878	IR WINDOW	1	
458(6)		VMT0257	BASE RUBBER(LCD)	2	
459(6)		VKM1673	BOTTOM COVER	1	
460(6)		VJR0507	ELECTRODE(+)	1	
461(6)		VJR0497	ELECTRODE(COM.)	1	
462(6)		VJR0412	ELECTRODE(-)	1	
463(6)		VKF1202	BATTERY COVER	1	
			SERVICING FIXTURES & TOOLS		
		VFJ8125H3F	VHS ALIGNMENT TAPE	1	
		VFK0335	RETAINING RING REMOVER	1	(3mm/4mm)
		VFK0387	TENSION POST ADJUSTMENT	1	
			PLATE		
		VFK0191	POST ADJUSTMENT PLATE	1	
		VFK0190	REEL TABLE HEIGHT GAUGE	1	
		VFK0328	H-POSITION ADJUSTMENT	1	
			SCREWDRIVER		
		VFK0329	POST ADJUSTMENT SCREWDRIVER	1	
		VFK62	FAN TYPE TENSION GAUGE	1	
		VFK0326	HEX WRENCH SET	1	
		VFK0132	BACK TENSION METER	1	
		VFK0343	CHECK LIGHT	1	
		VFK0344	HEIGHT ADJUSTMENT JIG	1	
		VFK27	HEAD CLEANING STICK	1	
		MOR265	MORLYTONE GREASE	1	
		VFK0341	UPPER CYLINDER REMOVER	1	

Electrical Replacement Parts List

Note:1.* Be sure to make your orders of replacement parts according to this list.
2.IMPORTANT SAFETY NOTICE
Components identified with the mark <!> have the special characteristics for safety. When replacing any of these components,use only the same type.
3.Unless otherwise specified,
All resistors are in OHMS ,K=1,000 OHMS. All capacitors are in MICRO-FARADS(uf),P=uuF.
4.The P.C.Board units marked width'■'show below the main assembled parts.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
**********		NV-L25EG/B			
		VEP03588E	MAIN C.B.A.	1	NV-L25EG(NLA)<!>
					[SUPPLIED FROM M.B.V]
					INCLUDING THE
					CYLINDER DRIVE PACK
					C.B.A.(VEP02329A),
					SUB MAIN C.B.A.
					(VEP03590B) WITH DDR
					SECAM PACK C.B.A.
					(VEP03452B), INPUT/
					OUTPUT PACK C.B.A.
					(VEP03594B),OSC PACK
					C.B.A.(VEP06583A),
					TV DEMODULATOR C.B.A.
					(VEP07536C),VPS PACK
					C.B.A.(VEP07538B)
		VEP03588G	MAIN C.B.A.	1	NV-L25B(NLA)<!>
					[SUPPLIED FROM M.B.V]
					INCLUDING THE
					CYLINDER DRIVE PACK
					C.B.A.(VEP02329A),
					SUB MAIN C.B.A.
					(VEP03590C),OSC PACK
					C.B.A.(VEP06583A),
					TV DEMODULATOR C.B.A.
					(VEP07550D)
		VEP02329A	CYLINDER DRIVE PACK C.B.A.	1	(NLA)
					[SUPPLIED FROM M.B.V]
		VEP03590C	SUB MAIN C.B.A.	1	NV-L25B(NLA)
					[SUPPLIED FROM M.B.V]
		VEP03590B	SUB MAIN C.B.A.	1	NV-L25EG(NLA)
					[SUPPLIED FROM M.B.V]
					INCLUDING THE
					DDR SECAM C.B.A.
					(VEP03452B).
		VEP03452B	DDR SECAM PACK C.B.A.	1	NV-L25EG(NLA)
					[SUPPLIED FROM M.B.V]
		VEP03594B	INPUT/OUTPUT PACK C.B.A.	1	NV-L25EG(NLA)
					[SUPPLIED FROM M.B.V]
		VEP06583A	OSC PACK C.B.A.	1	(NLA)
					[SUPPLIED FROM M.B.V]
		VEP07550D	TV DEMODULATOR C.B.A.	1	NV-L25B(NLA)
					[SUPPLIED FROM M.B.V]
		VEP07536C	TV DEMODULATOR C.B.A.	1	NV-L25EG(NLA)
					[SUPPLIED FROM M.B.V]
		VEP07538B	VPS PACK C.B.A.	1	NV-L25EG(NLA)
					[SUPPLIED FROM M.B.V]
		VEP07543C	TIMER C.B.A.	1	NV-L25EG(NLA)
					[SUPPLIED FROM M.B.V]
					INCLUDING THE
					IR RECIVER C.B.A.
					(VEP06380G) OR
					(VEP06500G).
		VEP07544C	TIMER C.B.A.	1	NV-L25B(NLA)
					[SUPPLIED FROM M.B.V]
					INCLUDING THE
					IR RECIVER C.B.A.
					(VEP06380G) OR
					(VEP06500G).
		VEP06380G	IR RECIVER C.B.A.	1	(NLA)
		VEP06500G			[SUPPLIED FROM M.B.V]
		VEP05137D	HEAD AMP C.B.A.	1	NV-L25EG(NLA)
		VEP05137A	HEAD AMP C.B.A.	1	NV-L25B(NLA)
		VEP06558G	OPERATION C.B.A.	1	NV-L25EG(NLA)
					[SUPPLIED FROM M.B.V]
					INCLUDING THE
					MIC JACK C.B.A.
					(VEP00N31A).
		VEP06558A	OPERATION C.B.A.	1	NV-L25B(NLA)
					[SUPPLIED FROM M.B.V]
					INCLUDING THE
					MIC JACK C.B.A.
					(VEP00N31A).
		VEP00N31A	MIC JACK C.B.A.	1	(NLA)
					[SUPPLIED FROM M.B.V]
		VEP01379D	POWER C.B.A.	1	NV-L25EG(NLA)<!>
					[SUPPLIED FROM M.B.V]
		VEP01379C	POWER C.B.A.	1	NV-L25B(NLA)<!>
					[SUPPLIED FROM M.B.V]
		VEP66079G	REMOTE CONTROLLER C.B.A.	1	NV-L25EG(NLA)
		VEP66079F	REMOTE CONTROLLER C.B.A.	1	NV-L25B(NLA)
		VEP00K88C	FE HEAD C.B.A.	1	(NLA)
		VXA3554	MECHANICAL CONNECTION	1	(NLA)
			C.B.A.		
		VEK3578	PHOTO TR.(S) C.B.A.	1	(NLA)
	■	VEP03588E	MAIN C.B.A		NV-L25EG(NLA)<!>
					[SUPPLIED FROM M.B.V]
			CAPACITORS		
C301		ECEA1EKN2R2	E.CAPACITOR 25V 2.2U	1	
C302		ECEA0JK220	E.CAPACITOR 6.3V 22U	1	
C303		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C304		ECEA0JU331	E.CAPACITOR 6.3V 330U	1	
C305		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C306		ECEA1EK4R7	E.CAPACITOR 25V 4.7U	1	
C307		ECUM1H470JCN	C.CAPACITOR CH 50V 47P	1	
C308		ECUM1H220JCN	C.CAPACITOR CH 50V 22P	1	
C310		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C311,12		ECUM1H180JCN	C.CAPACITOR CH 50V 18P	2	
C313		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C314		ECUM1H121JCN	C.CAPACITOR CH 50V 120P	1	
C315		ECUM1H560JCN	C.CAPACITOR CH 50V 56P	1	
C317		ECEA1AK470U	E.CAPACITOR 10V 47U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C319		ECUM1H471KBN	C.CAPACITOR CH 50V 470P	1	
C320		ECUM1H270JCN	C.CAPACITOR CH 50V 27P	1	
C321		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C322		ECEA1HK2R2	E.CAPACITOR 50V 2.2U	1	
C324		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C325,26		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C327,28		ECEA1CK100	E.CAPACITOR 16V 10U	2	
C329		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C331		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C332		ECQV1H334JZ	P.CAPACITOR 50V 0.33U	1	
C333		ECEA1HK4R7	E.CAPACITOR 50V 4.7U	1	
C334		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C335		ECUM1H680JCN	C.CAPACITOR CH 50V 68P	1	
C336		ECUM1H101JCN	C.CAPACITOR CH 50V 100P	1	
C337		ECUM1H270JCN	C.CAPACITOR CH 50V 27P	1	
C338		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C339		ECUM1H220JCN	C.CAPACITOR CH 50V 22P	1	
C340		ECEA1EK4R7	E.CAPACITOR 25V 4.7U	1	
C349		ECUM1H470JCN	C.CAPACITOR CH 50V 47P	1	
C351		ECUM1H220JCN	C.CAPACITOR CH 50V 22P	1	
C352		ECQB1H562JH	P.CAPACITOR 50V 5600P	1	
C353		ECUM1H560JCN	C.CAPACITOR CH 50V 56P	1	
C360		ECUM1H153ZFN	C.CAPACITOR CH 50V 0.015U	1	
C361		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C701		ECEA1EK4R7	E.CAPACITOR 25V 4.7U	1	
C702		ECEA1CKS100	E.CAPACITOR 16V 10U	1	
C703		ECEA1HK2R2	E.CAPACITOR 50V 2.2U	1	
C707		ECEA1HK0R1	E.CAPACITOR 50V 0.1U	1	
C708		ECEA1CKS100	E.CAPACITOR 16V 10U	1	
C710		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C715-20		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	6	
C721		ECEA1HKR27K	E.CAPACITOR 50V 0.27U	1	
C722		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C723		ECUM1H180JCN	C.CAPACITOR CH 50V 18P	1	
C725		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C727		ECUM1H080DCN	C.CAPACITOR CH 50V 80P	1	
C728		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C730		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C731		ECEA1CKS100	E.CAPACITOR 16V 10U	1	
C732		ECQV1H224JZ	P.CAPACITOR 50V 0.22U	1	
C734		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C735		ECUM1H070DCN	C.CAPACITOR CH 50V 7P	1	
C736		ECQB1H103JH	P.CAPACITOR 50V 0.01U	1	
C737		ECUM1H151JCN	C.CAPACITOR CH 50V 150P	1	
C739		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C740		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C741		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C742		ECUN1H030CCN	C.CAPACITOR CH 50V 3P	1	
C743		ECUM1H270RSN	C.CAPACITOR CH 50V 27P	1	
C744		ECEA1HKR47	E.CAPACITOR 50V 0.47U	1	
C745		ECUX1H680JPN	C.CAPACITOR CH 50V 68P	1	
C746		ECUM1H150JCN	C.CAPACITOR CH 50V 15P	1	
C748		ECEA1CK470U	E.CAPACITOR 16V 47U	1	
C749		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C760		ECQV1H473JZ	P.CAPACITOR 50V 0.047U	1	
C775		ECUM1H120JCN	C.CAPACITOR CH 50V 12P	1	
C781		ECUM1H220JCN	C.CAPACITOR CH 50V 22P	1	
C782		ECUM1H060DCN	C.CAPACITOR CH 50V 6P	1	
C790		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C797,98		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C814		ECEA1AK101	E.CAPACITOR 10V 100U	1	
C815		ECQV1H154JZ	P.CAPACITOR 50V 0.15U	1	
C816		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C817		ECQV1H124JZ	P.CAPACITOR 50V 0.12U	1	
C818		ECUM1H471KBN	C.CAPACITOR CH 50V 470P	1	
C819		ECUM1H820JCN	C.CAPACITOR CH 50V 82P	1	
C820		ECEA1HK2R2	E.CAPACITOR 50V 2.2U	1	
C821		ECEA1HFS4R7	E.CAPACITOR 50V 4.7U	1	
C823		ECEA1HK2R2	E.CAPACITOR 50V 2.2U	1	
C824		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C825		ECUM1H101JCN	C.CAPACITOR CH 50V 100P	1	
C826		ECEA1AU221	E.CAPACITOR 10V 220U	1	
C827		ECUM1H050DCN	C.CAPACITOR CH 50V 5P	1	
C828		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C829		ECQV1H474JZ	P.CAPACITOR 50V 0.47U	1	
C830		ECEA1EK4R7	E.CAPACITOR 25V 4.7U	1	
C831,32		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	2	
C833		ECUM1H471KBN	C.CAPACITOR CH 50V 470P	1	
C851		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	
C852		ECEA1CK330U	E.CAPACITOR 16V 33U	1	
C853		ECEA10Z47	E.CAPACITOR 10V 47U	1	
C854		ECQV1H563JZ	P.CAPACITOR 50V 0.056U	1	
C855		ECEA1CK330U	E.CAPACITOR 16V 33U	1	
C856		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	
C858		ECKF1H681KB	C.CAPACITOR 50V 680P	1	
C1001		ECEA1EK470	E.CAPACITOR 25V 47U	1	
C1003		ECEA0JK101U	E.CAPACITOR 6.3V 100U	1	
C1004		ECEA1CK470U	E.CAPACITOR 16V 47U	1	
C2001		ECEA0JK221	E.CAPACITOR 6.3V 220U	1	
C2002		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C2003		ECQB1H472JH	P.CAPACITOR 50V 4700P	1	
C2004		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C2005		ECQB1H103JZ	P.CAPACITOR 50V 0.01U	1	
C2006		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C2007		ECUM1H472KBN	C.CAPACITOR CH 50V 4700P	1	
C2008		ECEA1HKN010	E.CAPACITOR 50V 1U	1	
C2009		ECEA1CKN100	E.CAPACITOR 16V 10U	1	
C2010		ECEA1HKR47	E.CAPACITOR 50V 0.47U	1	
C2011		ECUM1H562KBN	C.CAPACITOR CH 50V 5600P	1	
C2012		VCYD1E473KR	S.CAPACITOR 25V 0.047U	1	
C2013		ECEA1HK4R7	E.CAPACITOR 50V 4.7U	1	
C2014		ECEA0JK221	E.CAPACITOR 6.3V 220U	1	
C2015		ECEA0JK101U	E.CAPACITOR 6.3V 100U	1	
C2016		ECQB1H103JH	P.CAPACITOR 50V 0.01U	1	
C2017		ECEA0JK221	E.CAPACITOR 6.3V 220U	1	
C2018		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C2019		ECEA1HKN2R2	E.CAPACITOR 50V 2.2U	1	
C2020		VCYD1E473KR	S.CAPACITOR 25V 0.047U	1	
C2022		ECEA1HKN2R2	E.CAPACITOR 50V 2.2U	1	
C2024		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C2025		ECQV1H683JZ	P.CAPACITOR 50V 0.068U	1	
C2026		ECQV1H224JZ	P.CAPACITOR 50V 0.22U	1	
C2027		ECEA1HKR47	E.CAPACITOR 50V 0.47U	1	
C2028		ECQB1H333JH	P.CAPACITOR 50V 0.033U	1	
C2029		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C2030		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C2031		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C2032		ECEA1HKN010	E.CAPACITOR 50V 1U	1	
C2033		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C2034		ECEA0JK330	E.CAPACITOR 6.3V 33U	1	
C2050		ECEA0JK221	E.CAPACITOR 6.3V 220U	1	
C2101-03		ECQB1H333JH	P.CAPACITOR 50V 0.033U	3	
C2104-06		ECEA1HK2R2	E.CAPACITOR 50V 2.2U	3	
C2107,08		VCYD1E333KR	S.CAPACITOR 25V 0.033U	2	
C2111		ECEA1CK101	E.CAPACITOR 16V 100U	1	
C2115		ECEA1CK470U	E.CAPACITOR 16V 47U	1	
C2116		ECEA1EU221	E.CAPACITOR 25V 220U	1	
C2118		VCYD1E333KR	S.CAPACITOR 25V 0.033U	1	
C2121		ECQV1H184JZ	P.CAPACITOR 50V 0.18U	1	
C2201		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C2203		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C2204-06		ECEA1HK0R1	E.CAPACITOR 50V 0.1U	3	
C2207		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C2208-10		ECEA1VKN4R7	E.CAPACITOR 35V 4.7U	3	
C2211		ECQB1H473JH	P.CAPACITOR 50V 0.047U	1	
C2212		ECEA0JK101U	E.CAPACITOR 6.3V 100U	1	
C2213		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C2301		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C2302		VCYD1E473KR	S.CAPACITOR 25V 0.047U	1	
C2303		ECUM1H562KBN	C.CAPACITOR CH 50V 5600P	1	
C2304		ECEA1HKR47	E.CAPACITOR 50V 0.47U	1	
C2305		ECEA1HKN010	E.CAPACITOR 50V 1U	1	
C2501		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C2502		ECUM1H220JCN	C.CAPACITOR CH 50V 22P	1	
C2504		ECEA1HKN010	E.CAPACITOR 50V 1U	1	
C2505		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C2506		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C2507		ECQB1H103JH	P.CAPACITOR 50V 0.01U	1	
C2508		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C2509		ECUM1H181JCN	C.CAPACITOR CH 50V 180P	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C3001		ECEA1CK470U	E.CAPACITOR 16V 47U	1	
C3002		ECEA0JU471	E.CAPACITOR 6.3V 470U	1	
C3003,04		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C3010		ECUM1H151JCN	C.CAPACITOR CH 50V 150P	1	
C3011		ECUM1H330JCN	C.CAPACITOR CH 50V 33P	1	
C3012		ECUM1H681KBN	C.CAPACITOR CH 50V 680P	1	
C3013		ECEA1HKN010	E.CAPACITOR 50V 1U	1	
C3014		ECUM1H330JCN	C.CAPACITOR CH 50V 33P	1	
C3015		VCYD1E103KR	S.CAPACITOR 25V 0.01U	1	
C3016		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C3017,18		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C3019		ECUM1H220JCN	C.CAPACITOR CH 50V 22P	1	
C3053		ECEA0JK101U	E.CAPACITOR 6.3V 100U	1	
C3064		ECQB1H103JH	P.CAPACITOR 50V 0.01U	1	
C3065		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3067,68		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C3070		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3071		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C3072		ECUM1H101JCN	C.CAPACITOR CH 50V 100P	1	
C3076		ECUM1H180JCN	C.CAPACITOR CH 50V 18P	1	
C3081		ECEA1CK220	E.CAPACITOR 16V 22U	1	
C3101		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C3102		ECEA1CK470U	E.CAPACITOR 16V 47U	1	
C3103,04		ECUM1H332KBN	C.CAPACITOR CH 50V 3300P	2	
C3105		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C3901,02		ECEA1CK330U	E.CAPACITOR 16V 33U	2	
C3903		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C3904-06		ECEA1CK470U	E.CAPACITOR 16V 47U	3	
C3907,08		ECEA1HK2R2	E.CAPACITOR 50V 2.2U	2	
C3909		ECEA1HKR47	E.CAPACITOR 50V 0.47U	1	
C3913		ECUM1H103KBN	C.CAPACITOR CH 50V 0.01U	1	
C3914		ECUM1H222KBN	C.CAPACITOR CH 50V 2200P	1	
C3916		ECUX1H471KBN	C.CAPACITOR CH 50V 470P	1	
C4001		ECQB1H103JH	P.CAPACITOR 50V 0.01U	1	
C4002		ECEA16M33	E.CAPACITOR 16V 33U	1	
C4003		ECKF1H102ZF	C.CAPACITOR 50V 1000P	1	
C4004		ECQP1222JZ	P.CAPACITOR 0.0022U	1	
C4005		ECCD2H121K	C.CAPACITOR 500V 120P	1	
C4006		ECEA1CK470U	E.CAPACITOR 16V 47U	1	
C4007		ECEA1CK330U	E.CAPACITOR 16V 33U	1	
C4008		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C4009		ECEA1EK4R7	E.CAPACITOR 25V 4.7U	1	
C4012		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C4013		ECUM1H681JN	C.CAPACITOR CH 50V 680P	1	
C4015		ECEA16M10	E.CAPACITOR 16V 10U	1	
C4016		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C4017		ECEA10M47	E.CAPACITOR 10V 47U	1	
C4018		ECQB1H822JH	P.CAPACITOR 50V 8200P	1	
C4019		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C4020		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C4021		ECEA1AK101	E.CAPACITOR 10V 100U	1	
C4022		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C4023		ECUM1H221JCN	C.CAPACITOR CH 50V 220P	1	
C4024,25		ECUM1H101JCN	C.CAPACITOR CH 50V 100P	2	
C4026		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C4029		ECQB1H123JH	P.CAPACITOR 50V 0.012U	1	
C4032		ECEA1CK470U	E.CAPACITOR 16V 47U	1	
C4034		ECUM1H681KBN	C.CAPACITOR CH 50V 680P	1	
C6001,02		ECEA0JK470	E.CAPACITOR 6.3V 47U	2	
C6005		ECEA1CK330U	E.CAPACITOR 16V 33U	1	
C6006		ECEA0JK330	E.CAPACITOR 6.3V 33U	1	
C6007		VCYD1C104MR1	S.CAPACITOR 16V 0.1U	1	
C6008		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C6010		ECUM1H332KBN	C.CAPACITOR CH 50V 3300P	1	
C6011,12		ECUM1H271JCN	C.CAPACITOR CH 50V 270P	2	
C6013		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	
C6014		ECEA1CK220	E.CAPACITOR 16V 22U	1	
C6015		ECEA1CK330U	E.CAPACITOR 16V 33U	1	
C6021		ECUM1H332KBN	C.CAPACITOR CH 50V 3300P	1	
C6022		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	
C6025		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C6028		ECUM1H332KBN	C.CAPACITOR CH 50V 3300P	1	
C6029		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	
C6101		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C6102		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C6103		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C6104		ECUM1H181JCN	C.CAPACITOR CH 50V 180P	1	
C6105		ECUM1H101JCN	C.CAPACITOR CH 50V 100P	1	
C6106		ECUM1H150JCN	C.CAPACITOR CH 50V 15P	1	
C6801		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C7401		ECEA0JU221	E.CAPACITOR 6.3V 220U	1	
C7402		EECS5R5V473	E.CAPACITOR 5.5V 0.047	1	
C7404		ECQV1H223JS	P.CAPACITOR 50V 0.022U	1	
C7407		ECEA0JK101	E.CAPACITOR 6.3V 100U	1	
C7409		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C7410		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C7421		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C7422		ECUM1H272KBN	C.CAPACITOR CH 50V 2700P	1	
C7423		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C7651		ECEA1CKN100	E.CAPACITOR 16V 10U	1	
C7653		ECQB1H332JH	P.CAPACITOR 50V 3300P	1	
C7668		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C7672		ECEA1HKS010	E.CAPACITOR 50V 1U	1	
C7801		ECQB1H102JH	P.CAPACITOR 50V 1000P	1	
C7802		ECQB1H471JH	P.CAPACITOR 50V 470P	1	
C7803		ECQB1H472JH	P.CAPACITOR 50V 4700P	1	
C7804		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C7805		ECQB1H103JH	P.CAPACITOR 50V 0.01U	1	
C7806		ECQB1H333JH	P.CAPACITOR 50V 0.033U	1	
C7815		VCYD1C104MR1	S.CAPACITOR 16V 0.1U	1	
C7816		ECEA0JKA331	E.CAPACITOR 6.3V 330U	1	
C7851		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C7852		ECEA1AK101	E.CAPACITOR 10V 100U	1	
C7853,54		ECCF1H330JC	C.CAPACITOR 50V 33P	2	
C7855,56		ECEA1HK010	E.CAPACITOR 50V 1U	2	
C7860		ECEA0JK101U	E.CAPACITOR 6.3V 100U	1	
D301		MA4091M	DIODE	1	
D710		MA3100L	DIODE	1	
D771		MA151WK	DIODE	1	
D772		MA165	DIODE	1	
D773		11ES1	DIODE	1	
D1001,02		MA165	DIODE	2	
D2003,04		MA165	DIODE	2	
D2007-10		MA165	DIODE	4	
D2501		MA165	DIODE	1	
D3001		MA165	DIODE	1	
D3009		MA165	DIODE	1	
D3101		MA165	DIODE	1	
D3102		MA27WA	DIODE	1	
D3901,02		MA165	DIODE	2	
D4003		MA165	DIODE	1	
D6001		MA4051	DIODE	1	
D6002-04		MA165	DIODE	3	
D6005		ERA15-01	DIODE	1	
D6006		MA165	DIODE	1	
D6008		MA723	DIODE	1	
D6009		MA4150L	DIODE	1	
D6021		MA723	DIODE	1	
D6801		MA165	DIODE	1	
D7401,02		MA723	DIODE	2	
D7406		MA165	DIODE	1	
D7407		MA27TB	DIODE	1	
D7672		MA3300H	DIODE	1	
D7851		MA165	DIODE	1	
DL802		EFDBR124A53T	DELAY	1	
FL301		ELB4M022	FILTER	1	
FL302		VLF0499	FILTER	1	
FL303		VLF0727	FILTER	1	
FL801		ELB4W002	FILTER	1	
FL851		VLF0143	FILTER	1	
FL3101		VLF0413	FILTER	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
IC301		VEFH03D	HIC	1	
IC303		MSM6965-3RS	IC	1	
IC701		M51366SP	IC	1	
IC801		VEFH04F	P.C.BOARD	1	
IC851		BA7025L	IC	1	
IC2001		MN6740VCPK	IC	1	
IC2101		BA6435S	IC	1	
IC2201		AN3814K	IC	1	
IC2301		AN6561L	IC	1	
IC2302		AN6913L	IC	1	
IC2501		CF77384NS	IC	1	
IC2502		BA6305F	IC	1	
IC3101		BA7004	IC	1	
IC3901		LA7150	IC	1	
IC4001		BA7766AS	IC	1	
IC4002		MC14053BF	IC	1	
IC6003		MN12821	IC	1	(R)
IC6801		MN15522VMS	IC	1	
IC7801		SAA4700	IC	1	
IC7851		MN158413VHW	IC	1	
IC7852		MN1280S	IC	1	
J701		VJR0231	PACK PIN	1	
J702,03		VJR0406	PACK PIN	2	
J704		VJR0231	PACK PIN	1	
KR851		VJR0163	PACK PIN	1	
L301		VLQEL05F101K	COIL 100UH	1	
L302		VLQEL05F220K	COIL 22UH	1	
L303,04		VLQEL05F101K	COIL 100UH	2	
L306		VLQEL05F101K	COIL 100UH	1	
L307		VLQEL05F151K	COIL 150UH	1	
L308		VLQEL05F270K	COIL 27UH	1	
L309,10		VLQEL05F101K	COIL 100UH	2	
L311		VLQEL05F2R2K	COIL 2.2UH	1	
L701,02		ELESP680KA	COIL 68UH	2	
L711		ELQTR68XB	COIL 0.68UH	1	
L712		VLQ0305J1R2	COIL 1.2UH	1	
L714		VLQ0305J1R2	COIL 1.2UH	1	
L715		VLQ0213K680	COIL 68UH	1	
L716		ELESP560KA	COIL 56H	1	
L717,18		ELESP680KA	COIL 68UH	2	
L719		ELESP120KA	COIL 12UH	1	
L781		ELESP680KA	COIL 68UH	1	
L804		VLQ0213K150	COIL 15UH	1	
L805		VLQEL05F101K	COIL 100UH	1	
L806		VLQEL05F681K	COIL 680UH	1	
L808		VLQEL05F470K	COIL 47UH	1	
L809		VLQEL05F331K	COIL 330UH	1	
L810		VLQEL05F101K	COIL 100UH	1	
L811		VLQEL05F470K	COIL 47UH	1	
L812		VLQEL05F681K	COIL 680UH	1	
L851		VLQEL05F101K	COIL 100UH	1	
L2002		VLP0074	COIL	1	
L2003		VLQEL05F101K	COIL 100UH	1	
L2101		VLQEL05F102K	COIL 1000UH	1	
L3001-03		VLQEL05F101K	COIL 100UH	3	
L3005		VLQEL05F120K	COIL 12UH	1	
L3006		VLQEL05F6R8K	COIL 6.8UH	1	
L3007		VLQEL05F101K	COIL 100UH	1	
L3008		VLQEL05F3R3K	COIL 3.3UH	1	
L3101		VLQEL05F101K	COIL 100UH	1	
L3901		VLQEL05F1R0K	COIL 1UH	1	
L3902		VLQEL05F2R7K	COIL 2.7UH	1	
L3903		VLQEL05F1R0K	COIL 1UH	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
L3904		VLQEL06F471K	COIL 470UH	1	
L4001		VLQEL07F822J	COIL 8200UH	1	
L4002		VLQEL05F471K	COIL 470UH	1	
L6101		VLQEL05F101K	COIL 100UH	1	
L7401		VLQEL05F1R0K	COIL 1UH	1	
L7402		VLQEL05F101K	COIL 100UH	1	
L7403		VLP0085	FILTER	1	
L7404		VLQEL05F1R0K	COIL 1UH	1	
L7405		VLQEL05F101K	COIL 100UH	1	
P001		VJS1237T	CONNECTOR	1	
P006		VJS1902	CONNECTOR (FEMALE)	1	
P501		VJS1931T	CONNECTOR (FEMALE)	1	
P1001		VJF0171T	CONNECTOR	1	
P1001		VJP1393T	CONNECTOR(MALE) 13P	1	
P1101		VJF0171T	CONNECTOR	1	
P1502		VJS1141T	CONNECTOR (FEMALE)	1	
P2001		VJP1932T	CONNECTOR (MALE)	1	
P2001		VJS1932T	CONNECTOR (FEMALE)	1	
P2201		VJP1237T	CONNECTOR(MALE) 10P	1	
P2201		VJS1237T	CONNECTOR	1	
P3001		VJP1931T	CONNECTOR (MALE)	1	
P3001		VJS1931T	CONNECTOR (FEMALE)	1	
P3902		VJS1469	CONNECTOR(FEMALE) 21P	1	
P4001		VJP2622	CONNECTOR (MALE)	1	
P4002		VJP1229T	CONNECTOR(MALE) 2P	1	
P4002		VJS1229T	CONNECTOR (FEMALE)	1	
P4003		VJP1231T	CONNECTOR(MALE) 4P	1	
P4003		VJS1231T	CONNECTOR (FEMALE)	1	
P6001		VJS2571A012	CONNECTOR (FEMALE)	1	
P6002		VJS2571A004	CONNECTOR (FEMALE)	1	
P6202		VJS1231T	CONNECTOR (FEMALE)	1	
P7401		VJS1662	CONNECTOR (FEMALE)	1	
P7402		VJS2571A015	CONNECTOR (FEMALE)	1	
PK1		VJR0189	PACK PIN	1	
PK2201		VJR0452	PACK PIN	1	
PK2202		VJR0348	PACK PIN	1	
PK3901		VJR0348	PACK PIN	1	
PK3902		VJR0523	PACK PIN	1	
PK3903		VJR0348	PACK PIN	1	
PK3904		VJR0416	PACK PIN	1	
PK6101		VJR0277	PACK PIN	1	
Q301		2SB709	TRANSISTOR CHIP	1	(Q,R,S)
Q302,03		2SC2295	TRANSISTOR CHIP	2	(B,C)
Q304		2SD601	TRANSISTOR CHIP	1	(Q,R,S)
Q703		2SD601	TRANSISTOR	1	(S,T)
Q710		2SC2377	TRANSISTOR	1	(C,D)
Q712		2SD638	TRANSISTOR	1	
Q713		2SD1328	TRANSISTOR	1	
Q771		2SD601	TRANSISTOR CHIP	1	
Q804		2SB709	TRANSISTOR CHIP	1	(Q,R,S)
Q2001		2SD601	TRANSISTOR CHIP	1	(Q,R,S)
Q2002		2SD1330	TRANSISTOR	1	(S,T)
Q2301		2SD601	TRANSISTOR CHIP	1	(Q,R,S)
Q2302,03		2SB709	TRANSISTOR CHIP	2	(Q,R,S)
Q3001		2SC2295	TRANSISTOR	1	
Q3003		2SD601	TRANSISTOR CHIP	1	
Q3004		2SB709	TRANSISTOR CHIP	1	(Q,R,S)
Q3006		2SC2295	TRANSISTOR	1	
Q3007		2SB709	TRANSISTOR CHIP	1	(Q,R,S)
Q3101		2SD601	TRANSISTOR CHIP	1	
Q4001		2SD602	TRANSISTOR	1	(R)
Q4002		2SB790	TRANSISTOR	1	(Q,R,S)
Q6001		2SD893	TRANSISTOR	1	
Q6002,03		2SD973	TRANSISTOR	2	(S)
Q6004		2SD638	TRANSISTOR	1	
Q6006		2SB643	TRANSISTOR	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
Q6007		2SB710	TRANSISTOR	1	(R,S)
Q6008		2SD1273	TRANSISTOR	1	(P,O)
Q6009		2SB710	TRANSISTOR	1	(R,S)
Q6010		2SD637	TRANSISTOR	1	
Q6011		2SB709	TRANSISTOR CHIP	1	
Q6101		2SC2206	TRANSISTOR	1	(B,C)
QR701,02		UN2213	TRANSISTOR-RESISTOR	2	
QR711,12		UN2212	TRANSISTOR-RESISTOR	2	
QR714		UN2211	TRANSISTOR-RESISTOR	1	
QR853		UN1213	TRANSISTOR-RESISTOR	1	
QR1001		UN2213	TRANSISTOR-RESISTOR	1	
QR2002		DTC363EK	COMBI.TR-R	1	
QR2004		2SD1676	COMBINATION PARTS	1	
QR2005		UN2213	TRANSISTOR-RESISTOR	1	
QR2502		DTC363EK	COMBI.TR-R	1	
QR3004		UN2111	TRANSISTOR-RESISTOR	1	
QR3005		UN2213	TRANSISTOR-RESISTOR	1	
QR3008		UN2213	TRANSISTOR-RESISTOR	1	
QR4001,02		UN2213	TRANSISTOR-RESISTOR	2	
QR6002		UN2119	TRANSISTOR-RESISTOR	1	
QR6003		UN2113	TRANSISTOR-RESISTOR	1	
QR6004		UN2213	TRANSISTOR-RESISTOR	1	
QR6007		UN2212	TRANSISTOR-RESISTOR	1	
QR6008		UN2213	TRANSISTOR-RESISTOR	1	
QR6011,12		UN2212	TRANSISTOR-RESISTOR	2	
QR6201		UN2113	TRANSISTOR-RESISTOR	1	
QR6202		UN2213	TRANSISTOR-RESISTOR	1	
QR7401		UN2211	TRANSISTOR-RESISTOR	1	
QR7851		UN1211	TRANSISTOR-RESISTOR	1	
QR7852		UN1213	TRANSISTOR-RESISTOR	1	
			RESISTORS		
R301		ERJ6GMYJ122	M.RESISTOR CH 1/10W 1.2K	1	
R302		ERJ6GMYJ391	M.RESISTOR CH 1/10W 390	1	
R303		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R304		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R305		ERJ6GMYJ824	M.RESISTOR CH 1/10W 820K	1	
R306		ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R307		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R308		ERJ6GMYJ123	M.RESISTOR CH 1/10W 12K	1	
R309		ERJ6GMYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R310		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R311		ERJ6GMYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R312		ERJ6GMYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R317		ERJ6GMYJ471	M.RESISTOR CH 1/10W 470	1	
R320		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R325		ERJ6GMYJ151	M.RESISTOR CH 1/10W 150	1	
R326		ERJ6GMYJ822	M.RESISTOR CH 1/10W 8.2K	1	
R327		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R328		ERJ6GMYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R329		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R330		ERJ6GMYJ183	M.RESISTOR CH 1/10W 18K	1	
R331		ERJ6GMYJ561	M.RESISTOR CH 1/10W 560	1	
R332		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R334,35		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	2	
R338		ERJ6GMYJ124	M.RESISTOR CH 1/10W 120K	1	
R339		ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	1	
R712		ERJ6GEYJ682	M.RESISTOR CH 1/10W 6.8K	1	
R713		ERJ6GEYJ681	M.RESISTOR CH 1/10W 680	1	
R714		ERD2FCG330	C.RESISTOR 2W 33	1	
R715		ERJ6GEYJ271	M.RESISTOR CH 1/10W 270	1	
R716		ERJ6GEYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R717		ERJ6GEYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R718		ERJ6GEYJ754	M.RESISTOR CH 1/10W 750K	1	
R719,20		ERJ6GEYJ682	M.RESISTOR CH 1/10W 6.8K	2	
R721		ERJ6GEYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R722		ERJ6GEYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R723		ERJ6GEYJ183	M.RESISTOR CH 1/10W 180K	1	
R724		ERDS2TJ101	C.RESISTOR 1/4W 100	1	
R725		ERJ6GEYJ182	M.RESISTOR CH 1/10W 1.8K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R726		ERJ6GEYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R727		ERJ6GEYJ471	M.RESISTOR CH 1/10W 470	1	
R728		ERDS2TJ471	C.RESISTOR 1/4W 470	1	
R729,30		ERJ6GEYJ331	M.RESISTOR CH 1/10W 330	2	
R737		ERJ6GEYJ274	M.RESISTOR CH 1/10W 270K	1	
R738		ERJ6GEYJ334	M.RESISTOR CH 1/10W 330K	1	
R739		ERJ6GEYJ681	M.RESISTOR CH 1/10W 680	1	
R740		ERJ6GEYJ473	M.RESISTOR CH 1/10W 47K	1	
R741		ERJ6GEYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R743		ERJ6GEYJ470	M.RESISTOR CH 1/10W 47	1	
R744		ERJ6GEYJ821	M.RESISTOR CH 1/10W 820	1	
R745		ERJ6GEYJ331	M.RESISTOR CH 1/10W 330	1	
R746		ERDS2TJ181	C.RESISTOR 1/4W 180	1	
R747		ERJ6GEYJ471	M.RESISTOR CH 1/10W 470	1	
R750		ERJ6GEYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R757		ERJ6GEYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R758		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R759		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R763		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R764		ERJ6GEYJ822	M.RESISTOR CH 1/10W 8.2K	1	
R772		ERJ6GEYJ271	M.RESISTOR CH 1/10W 270	1	
R773		ERJ6GEYJ124	M.RESISTOR CH 1/10W 120K	1	
R774		ERJ6GEYJ104	M.RESISTOR CH 1/10W 100K	1	
R781		ERJ6GEYJ271	M.RESISTOR CH 1/10W 270	1	
R782		ERJ6GEYJ821	M.RESISTOR CH 1/10W 820	1	
R792		ERDS2TJ120	C.RESISTOR 1/4W 12	1	
R795		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R796		ERJ6GEYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R815		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R816		ERJ6GMYJ822	M.RESISTOR CH 1/10W 8.2K	1	
R818		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R819		ERJ6GMYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R820		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R821		ERJ6GMYJ273	M.RESISTOR CH 1/10W 27K	1	
R822		ERJ6GMYJ183	M.RESISTOR CH 1/10W 18K	1	
R823		ERJ6GMYJ271	M.RESISTOR CH 1/10W 270	1	
R824		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R825		ERJ6GMYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R831		ERJ6GMYJ821	M.RESISTOR CH 1/10W 820	1	
R851		ERDS2TJ223	C.RESISTOR 1/4W 22K	1	
R852		ERDS2TJ390	C.RESISTOR 1/4W 39	1	
R853		ERDS2TJ154	C.RESISTOR 1/4W 150K	1	
R854		ERDS2TJ222	C.RESISTOR 1/4W 2.2K	1	
R855		ERDS2TJ102	C.RESISTOR 1/4W 1K	1	
R856		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R858		ERDS2TJ561	C.RESISTOR 1/4W 560	1	
R2001,02		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	2	
R2004,05		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	2	
R2006		ERJ6GMY0R00	M.RESISTOR CH 1/10W 0.00	1	
R2007		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R2008		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R2009		ERJ6GMYJ393	M.RESISTOR CH 1/10W 39K	1	
R2010		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R2011		ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R2012		ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R2013		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R2014		ERJ6GMYJ824	M.RESISTOR CH 1/10W 820K	1	
R2015,16		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	2	
R2017		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R2018		ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R2019		ERJ6GMYJ124	M.RESISTOR CH 1/10W 120K	1	
R2020		ERJ6GMYJ821	M.RESISTOR CH 1/10W 820	1	
R2021		ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R2022		ERJ6GMYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R2023		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R2024		ERJ6GMYJ823	M.RESISTOR CH 1/10W 82K	1	
R2025		ERJ6GMYG562	M.RESISTOR CH 1/10W 5.6K	1	
R2026		ERJ6GMYG392	M.RESISTOR CH 1/10W 3.9K	1	
R2027		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R2028		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R2029		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R2030		ERJ6GMYJ123	M.RESISTOR CH 1/10W 12K	1	
R2031		ERJ6GMYJ392	M.RESISTOR CH 1/10W 3.9K	1	
R2032		ERDS2TJ471	C.RESISTOR 1/4W 470	1	
R2033		ERJ6GMYJ824	M.RESISTOR CH 1/10W 820K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R2034		ERJ6GMYJ104	M.RESISTOR CH 1/10W 100K	1	
R2037		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R2038		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R2040		ERJ6GMYJ471	M.RESISTOR CH 1/10W 470	1	
R2051		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R2101-03		ERDS2TJ560	C.RESISTOR 1/4W 56	3	
R2104		ERX12SJR47E	M.RESISTOR 1/2W 0.47	1	
R2105		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R2106		ERJ6GMYG561	M.RESISTOR CH 1/10W 560	1	
R2107		ERJ6GMYG153	M.RESISTOR CH1/10W 15K	1	
R2108		ERJ6GMYG133	M.RESISTOR CH 1/10W 13K	1	
R2109		ERJ6GMYJ330	M.RESISTOR CH 1/10W 33	1	
R2201		ERDS2TJ122	C.RESISTOR 1/4W 1.2K	1	
R2202-04		ERDS2TJ150	C.RESISTOR 1/4W 15	3	
R2205		ERX12SJR68	M.RESISTOR 1/2W 0.68	1	
R2301		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R2302		ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R2303		ERJ6GMYJ393	M.RESISTOR CH 1/10W 39K	1	
R2304		ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R2305		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R2306		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R2307		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R2308		ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R2309		ERJ6GMYJ824	M.RESISTOR CH 1/10W 820K	1	
R2310		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R2311		ERJ6GMYJ824	M.RESISTOR CH 1/10W 820K	1	
R2312,13		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	2	
R2314,15		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	2	
R2316		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R2405		ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R2501		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R2503		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R2504		ERJ6GMYJ823	M.RESISTOR CH 1/10W 82K	1	
R2505		ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R2506		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R3001		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R3002		ERJ6GMYJ682	M.RESISTOR CH 1/10W 6.8K	1	
R3003		ERJ6GMYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R3019		ERDS2TJ471	C.RESISTOR 1/4W 470	1	
R3022,23		ERJ6GMYJ821	M.RESISTOR CH 1/10W 820	2	
R3027		ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R3028		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R3029		ERJ6GMYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R3030		ERJ6GMYJ750	M.RESISTOR CH 1/10W 75	1	
R3042		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R3062		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R3063		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R3071		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R3085		ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R3086		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R3087,88		ERJ6GMYJ104	M.RESISTOR CH 1/10W 100K	2	
R3094		ERJ6GMY0R00	M.RESISTOR CH 1/10W 0.00	1	
R3095		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R3096		ERDS2TJ102	C.RESISTOR 1/4W 1K	1	
R3101		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R3102		ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R3103		ERJ6GMYJ392	M.RESISTOR CH 1/10W 3.9K	1	
R3104		ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R3105		ERJ6GMYJ561	M.RESISTOR CH 1/10W 560	1	
R3901		ERJ6GEYJ750	M.RESISTOR CH 1/10W 75	1	
R3902		ERDS2TJ750	C.RESISTOR 1/4W 75	1	
R3903,04		ERJ6GEYJ242	M.RESISTOR CH 1/10W 2.4K	2	
R3905		ERJ6GEYJ101	M.RESISTOR CH 1/10W 100	1	
R3906		ERJ6GEYJ273	M.RESISTOR CH 1/10W 27K	1	
R3908		ERJ6GEYJ333	M.RESISTOR CH 1/10W 33K	1	
R3909		ERJ6GEYJ750	M.RESISTOR CH 1/10W 75	1	
R3910		ERDS2TJ750	C.RESISTOR 1/4W 75	1	
R3912		ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	1	
R3913		ERJ6GEYJ123	M.RESISTOR CH 1/10W 12K	1	
R3916		ERDS2TO	C.RESISTOR 1/4W 0	1	
R4001		ERJ6GMYJ100	M.RESISTOR CH 1/10W 10	1	
R4002		ERJ6GMYJ153	M.RESISTOR CH 1/10W 15K	1	
R4003		ERJ6GMYG223	M.RESISTOR CH1/10W 22K	1	
R4004		ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R4007		ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R4008		ERJ6GMYJ122	M.RESISTOR CH 1/10W 1.2K	1	
R4010		ERJ6GMYJ683	M.RESISTOR CH 1/10W 68K	1	
R4012		ERJ6GMYJ331	M.RESISTOR CH 1/10W 330	1	
R4013		ERJ6GMYJ394	M.RESISTOR CH 1/10W 390K	1	
R4014		ERJ6GMYG133	M.RESISTOR CH 1/10W 13K	1	
R4016		ERJ6GMYJ105	M.RESISTOR CH 1/10W 1M	1	
R4017		ERJ6GMYJ302	M.RESISTOR CH1/10W 3K	1	
R4018		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R4019		ERJ6GMYJ563	M.RESISTOR CH 1/10W 56K	1	
R4020		ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R4021		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R4022		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R4023		ERJ6GMYG473	M.RESISTOR CH 1/10W 47K	1	
R4024,25		ERJ6GMYG104	M.RESISTOR CH 1/10W 100K	2	
R4026		ERJ6GMYJ123	M.RESISTOR CH 1/10W 12K	1	
R4027		ERJ6GMYJ153	M.RESISTOR CH 1/10W 15K	1	
R4028		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R4031		ERJ6GMYG272	M.RESISTOR CH1/10W 2.7K	1	
R4032		ERJ6GMYG622	M.RESISTOR CH1/10W 6.2K	1	
R4035		ERJ6GMYJ822	M.RESISTOR CH 1/10W 8.2K	1	
R4036		ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R4038		ERDS2TJ562	C.RESISTOR 1/4W 5.6K	1	
R4039		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R4040		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R4041		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R4042		ERJ6GMYJ681	M.RESISTOR CH 1/10W 680	1	
R4044		ERJ6GMY0R00	M.RESISTOR CH 1/10W 0.00	1	
R4048		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R4049		ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	
R6001-03		ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	3	
R6004,05		ERJ6GMYJ333	M.RESISTOR CH 1/10W 33K	2	
R6006		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R6007		ERJ6GMYJ122	M.RESISTOR CH 1/10W 1.2K	1	
R6008		ERJ6GMYJ561	M.RESISTOR CH 1/10W 560	1	
R6009		ERJ6GMYJ333	M.RESISTOR CH 1/10W 33K	1	
R6010		ERJ6GMYJ561	M.RESISTOR CH 1/10W 560	1	
R6011		ERJ6GMYJ333	M.RESISTOR CH 1/10W 33K	1	
R6012		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R6013		ERJ6GMYJ683	M.RESISTOR CH 1/10W 68K	1	
R6014		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R6015		ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	1	
R6017		ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R6018		ERJ6GMYJ131	M.RESISTOR CH 1/10W 130	1	
R6019		ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R6020		ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R6021		ERJ6GMYJ201	M.RESISTOR CH 1/10W 200	1	
R6022		ERG3SJ220	M.RESISTOR 3W 22	1	
R6023		ERJ6GMYJ471	M.RESISTOR CH 1/10W 470	1	
R6024		ERJ6GMYJ561	M.RESISTOR CH 1/10W 560	1	
R6025		ERJ6GMYJ391	M.RESISTOR CH 1/10W 390	1	
R6026		ERD2FCVG220	C.RESISTOR 2W 22	1	
R6028		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R6029		ERDS2TJ152	C.RESISTOR 1/4W 1.5K	1	
R6039		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R6040		ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R6041		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R6042,43		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	2	
R6044,45		ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	2	
R6047		ERDS1TJ332	C.RESISTOR 1/2W 3.3K	1	
R6048		ERJ6GMYJ681	M.RESISTOR CH 1/10W 680	1	
R6049		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R6050		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R6051		ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R6052		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R6053		ERG2SJ471	M.RESISTOR 2W 470	1	
R6054		ERJ6GMYJ104	M.RESISTOR CH 1/10W 100K	1	
R6055		ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	1	
R6056		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R6057		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R6059		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R6060		ERJ6GMYJ104	M.RESISTOR CH 1/10W 100K	1	
R6101		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R6102		ERJ6GEYJ333	M.RESISTOR CH 1/10W 33K	1	
R6103,04		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	2	
R6201		ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R6202		ERJ6GMYJ183	M.RESISTOR CH 1/10W 18K	1	
R6203		ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	1	
R6204		ERJ6GMYJ391	M.RESISTOR CH 1/10W 390	1	
R6205,06		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	2	
R6801		ERDS1TJ470	C.RESISTOR 1/2W 47	1	
R7401		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R7402		ERJ6GMYJ181	M.RESISTOR CH 1/10W 180	1	
R7656		ERJ6GEYJ221	M.RESISTOR CH 1/10W 220	1	
R7676		ERG1SJ332	M.RESISTOR 1W 3.3K	1	
R7801		ERDS2TJ472	C.RESISTOR 1/4W 4.7K	1	
R7802		ER0S2CKG7502	M.RESISTOR 1/4W 75K	1	
R7803,04		ERDS2TJ103	C.RESISTOR 1/4W 10K	2	
R7805		ERDS2TJ473	C.RESISTOR 1/4W 47K	1	
R7806		ER0S2CKG3601	M.RESISTOR 1/4W 3.6K	1	
R7851		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R7852		ERDS2TJ332	C.RESISTOR 1/4W 3.3K	1	
R7860		ERDS2TJ471	C.RESISTOR 1/4W 470	1	
T703		EIV5EC013A	TRANSFORMER	1	
T704		EIV5EC006A1	TRANSFORMER	1	
T710		EULBEF023	TRANSFORMER	1	
T711		EIS5EC004A	TRANSFORMER	1	
T851		ELM7Q207A	COIL	1	
T4001		EIQ7QF013Q	TRANSFORMER	1	
VR302		EVN4YCA00B23	V.RESISTOR 2K	1	
VR701,02		EVM4LGA00B23	V.RESISTOR 2K	2	
VR741		EVNDRAA00B14	V.RESISTOR 10K	1	
VR751		EVNDRAA00B53	V.RESISTOR 5K	1	
VR803		EVNDRAA00B14	V.RESISTOR 10K	1	
VR2001		EVNDRAA00B54	V.RESISTOR 50K	1	
VR2010		EVND1AA00B25	V.RESISTOR 200K	1	
VR2011		EVNDRAA00B15	V.RESISTOR 100K	1	
VR3012		EVNDRAA00B52	V.RESISTOR 500	1	
VR4002		EVNDRAA00B25	V.RESISTOR 200K	1	
X301		VSX0225	CRYSTAL OSCILLATOR	1	
X710		EFCH38MSP2	CRYSTAL OSCILLATOR	1	
X711		EFCS5R5MW5	FILTER	1	
X712		EFCS5R5MS5	FILTER	1	
X715		ELB5A043	FILTER	1	
X716		EFCA31R90M1	CRYSTAL OSCILLATOR	1	31.75MHZ
X717		EFCA40R40M1	FILTER	1	
X801		VSX0162	CRYSTAL OSCILLATOR	1	
X3101		VSX0099	CRYSTAL OSCILLATOR	1	
X6101		VSX0244	CRYSTAL OSCILLATOR	1	
X6801		VSX0258	CRYSTAL OSC.	1	
X7401		VSQ0565	SENSOR	1	
X7851		EF0A4R0M03C2	CRYSTAL OSCILLATOR	1	
			MISCELLANEOUS		
		VMC0075	HEAT SINK FIX SPRING	1	
		VSC1689	HEAT SINK FOR IC	1	
		VSC1068	HEAT SINK FOR TR.	1	
		VSC2712	SHIELD BOX(TOP)	1	FOR TV DEMODU. PACK
		VSC2713	SHIELD BOX(MAIN)	1	FOR TV DEMODU. PACK
		VSC2714	SHIELD BOX(BOTTOM)	1	FOR TV DEMODU. PACK
		ENC17956	RF CONVERTER UNIT	1	<!>
					[SUPPLIED FROM M.B.V]
		ENV57830H6	TUNER UNIT	1	<!>
					[SUPPLIED FROM M.B.V]
		VEJ0793	ANT. TERMINAL PLATE	1	[SUPPLIED FROM M.B.V]
		VEJ0776	JACK PLATE	1	[SUPPLIED FROM M.B.V]
		VWJ14AW140MM	*FLEXIBLE WIRE*	1	P7401-P7501
		VMZ1130	HEAT SINK BARRIER	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
	■	VEP03588G	MAIN C.B.A.		NV-L25B<!>(NLA)
					[SUPPLIED FROM M.B.V]
			CAPACITORS		
C301		ECEA1EKN2R2	E.CAPACITOR 25V 2.2U	1	
C302		ECEA0JK220	E.CAPACITOR 6.3V 22U	1	
C303		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C304		ECEA0JU331	E.CAPACITOR 6.3V 330U	1	
C305		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C306		ECEA1EK4R7	E.CAPACITOR 25V 4.7U	1	
C307		ECUM1H470JCN	C.CAPACITOR CH 50V 47P	1	
C308		ECUM1H220JCN	C.CAPACITOR CH 50V 22P	1	
C309		ECUN1H473ZFN	C.CAPACITOR CH 50V 0.047U	1	
C310		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C311,12		ECUM1H180JCN	C.CAPACITOR CH 50V 18P	2	
C313		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C314		ECUM1H560JCN	C.CAPACITOR CH 50V 56P	1	
C315		ECUM1H390JCN	C.CAPACITOR CH 50V 39P	1	
C316		ECUM1H820JCN	C.CAPACITOR CH 50V 82P	1	
C317		ECEA1AK470U	E.CAPACITOR 10V 47U	1	
C318		ECUM1H220JCN	C.CAPACITOR CH 50V 22P	1	
C319		ECUM1H471KBN	C.CAPACITOR CH 50V 470P	1	
C320		ECUM1H270JCN	C.CAPACITOR CH 50V 27P	1	
C321		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C322		ECEA1HK2R2	E.CAPACITOR 50V 2.2U	1	
C323,24		ECEA1CK100	E.CAPACITOR 16V 10U	2	
C325,26		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C327,28		ECEA1CK100	E.CAPACITOR 16V 10U	2	
C329		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C331		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C332		ECQV1H334JZ	P.CAPACITOR 50V 0.33U	1	
C333		ECEA1HK4R7	E.CAPACITOR 50V 4.7U	1	
C334		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C335		ECUM1H680JCN	C.CAPACITOR CH 50V 68P	1	
C336		ECUM1H101JCN	C.CAPACITOR CH 50V 100P	1	
C337		ECUM1H270JCN	C.CAPACITOR CH 50V 27P	1	
C338		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C339		ECUM1H220JCN	C.CAPACITOR CH 50V 22P	1	
C340		ECEA1EK4R7	E.CAPACITOR 25V 4.7U	1	
C341		ECUM1H223KBN	C.CAPACITOR CH 50V 0.022U	1	
C342		ECUM1H101JCN	C.CAPACITOR CH 50V 100P	1	
C343		ECEA0JK220	E.CAPACITOR 6.3V 22U	1	
C345		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C349		ECUM1H470JCN	C.CAPACITOR CH 50V 47P	1	
C351		ECUM1H220JCN	C.CAPACITOR CH 50V 22P	1	
C352		ECQB1H562JH	P.CAPACITOR 50V 5600P	1	
C360		ECUM1H153ZFN	C.CAPACITOR CH 50V 0.015U	1	
C361		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C702		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C703		ECEA1HK2R2	E.CAPACITOR 50V 2.2U	1	
C706		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C708		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C710		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C715-20		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	6	
C721		*ECEA1HKR27K*	*E.CAPACITOR 50V 0.27U*	1	
C722		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C723		ECUM1H120JCN	C.CAPACITOR CH 50V 12P	1	
C725		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C728		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C730		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C731		ECEA1CKS100	E.CAPACITOR 16V 10U	1	
C732		ECQV1H224JZ	P.CAPACITOR 50V 0.22U	1	
C734		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C735		ECUM1H070DCN	C.CAPACITOR CH 50V 7P	1	
C736		ECQB1H103JH	P.CAPACITOR 50V 0.01U	1	
C737		ECUM1H151JCN	C.CAPACITOR CH 50V 150P	1	
C739		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C740		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C741		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C742		ECUN1H030CCN	C.CAPACITOR CH 50V 3P	1	
C743		ECUM1H270JSN	C.CAPACITOR CH 50V 27P	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C744		ECEA1HKR47	E.CAPACITOR 50V 0.47U	1	
C745		ECUX1H680JPN	C.CAPACITOR CH 50V 68P	1	
C746		ECUM1H150JCN	C.CAPACITOR CH 50V 15P	1	
C748		ECEA1CK330U	E.CAPACITOR 16V 33U	1	
C749		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C760		ECQV1H563JZ	P.CAPACITOR 50V 0.056U	1	
C781		ECUM1H390JCN	C.CAPACITOR CH 50V 39P	1	
C782		ECUM1H060DCN	C.CAPACITOR CH 50V 6P	1	
C797-99		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	3	
C801,02		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C803		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C804,05		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C806		ECUM1H471KBN	C.CAPACITOR CH 50V 470P	1	
C807,08		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C810		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C811		ECUM1H180JCN	C.CAPACITOR CH 50V 18P	1	
C812		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C813		ECUM1H330JCN	C.CAPACITOR CH 50V 33P	1	
C814		ECEA1AK101	E.CAPACITOR 10V 100U	1	
C815		ECQV1H154JZ	P.CAPACITOR 50V 0.15U	1	
C816		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C817		ECQV1H124JZ	P.CAPACITOR 50V 0.12U	1	
C818		ECUM1H471KBN	C.CAPACITOR CH 50V 470P	1	
C819		ECUM1H820JCN	C.CAPACITOR CH 50V 82P	1	
C820		ECEA1HK2R2	E.CAPACITOR 50V 2.2U	1	
C821		ECEA1HFS4R7	E.CAPACITOR 50V 4.7U	1	
C823		ECEA1HK2R2	E.CAPACITOR 50V 2.2U	1	
C824		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C825		ECUM1H101JCN	C.CAPACITOR CH 50V 100P	1	
C826		ECEA1AU221	E.CAPACITOR 10V 220U	1	
C827		ECUM1H050DCN	C.CAPACITOR CH 50V 5P	1	
C828		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C829		ECQV1H474JZ	P.CAPACITOR 50V 0.47U	1	
C831,32		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	2	
C833		ECUM1H471KBN	C.CAPACITOR CH 50V 470P	1	
C1001		ECEA1EK470	E.CAPACITOR 25V 47U	1	
C1003		ECEA0JK101U	E.CAPACITOR 6.3V 100U	1	
C1004		ECEA1CK470U	E.CAPACITOR 16V 47U	1	
C2001		ECEA0JK221	E.CAPACITOR 6.3V 220U	1	
C2002		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C2003		ECQB1H472JH	P.CAPACITOR 50V 4700P	1	
C2004		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C2005		ECQB1H103JZ	P.CAPACITOR 50V 0.01U	1	
C2006		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C2007		ECUM1H472KBN	C.CAPACITOR CH 50V 4700P	1	
C2008		ECEA1HKN010	E.CAPACITOR 50V 1U	1	
C2009		ECEA1CKN100	E.CAPACITOR 16V 10U	1	
C2010		ECEA1HKR47	E.CAPACITOR 50V 0.47U	1	
C2011		ECUM1H562KBN	C.CAPACITOR CH 50V 5600P	1	
C2012		VCYD1E473KR	S.CAPACITOR 25V 0.047U	1	
C2013		ECEA1HK4R7	E.CAPACITOR 50V 4.7U	1	
C2014		ECEA0JK221	E.CAPACITOR 6.3V 220U	1	
C2015		ECEA0JK101U	E.CAPACITOR 6.3V 100U	1	
C2016		ECQB1H103JH	P.CAPACITOR 50V 0.01U	1	
C2017		ECEA0JK221	E.CAPACITOR 6.3V 220U	1	
C2018		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C2019		ECEA1HKN2R2	E.CAPACITOR 50V 2.2U	1	
C2020		VCYD1E473KR	S.CAPACITOR 25V 0.047U	1	
C2022		ECEA1HKN2R2	E.CAPACITOR 50V 2.2U	1	
C2024		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C2025		ECQV1H683JZ	P.CAPACITOR 50V 0.068U	1	
C2026		ECQV1H224JZ	P.CAPACITOR 50V 0.22U	1	
C2027		ECEA1HKR47	E.CAPACITOR 50V 0.47U	1	
C2028		ECQB1H333JH	P.CAPACITOR 50V 0.033U	1	
C2029		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C2030		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C2031		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C2032		ECEA1HKN010	E.CAPACITOR 50V 1U	1	
C2033		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C2034		ECEA0JK330	E.CAPACITOR 6.3V 33U	1	
C2050		ECEA0JK221	E.CAPACITOR 6.3V 220U	1	
C2101-03		ECQB1H333JH	P.CAPACITOR 50V 0.033U	3	
C2104-06		ECEA1HK2R2	E.CAPACITOR 50V 2.2U	3	
C2107,08		VCYD1E333KR	S.CAPACITOR 25V 0.033U	2	
C2111		ECEA1CK101	E.CAPACITOR 16V 100U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C2115		ECEA1CK470U	E.CAPACITOR 16V 47U	1	
C2116		ECEA1EU221	E.CAPACITOR 25V 220U	1	
C2118		VCYD1E333KR	S.CAPACITOR 25V 0.033U	1	
C2121		ECQV1H184JZ	P.CAPACITOR 50V 0.18U	1	
C2201		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C2203		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C2204-06		ECEA1HK0R1	E.CAPACITOR 50V 0.1U	3	
C2207		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C2208-10		ECEA1VKN4R7	E.CAPACITOR 35V 4.7U	3	
C2211		ECQB1H473JH	P.CAPACITOR 50V 0.047U	1	
C2212		ECEA0JK101U	E.CAPACITOR 6.3V 100U	1	
C2213		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C2301		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C2302		VCYD1E473KR	S.CAPACITOR 25V 0.047U	1	
C2303		ECUM1H562KBN	C.CAPACITOR CH 50V 5600P	1	
C2304		ECEA1HKR47	E.CAPACITOR 50V 0.47U	1	
C2305		ECEA1HKN010	E.CAPACITOR 50V 1U	1	
C2501		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C2502		ECUM1H220JCN	C.CAPACITOR CH 50V 22P	1	
C2504		ECEA1HKN010	E.CAPACITOR 50V 1U	1	
C2505		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C2506		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C2507		ECQB1H103JH	P.CAPACITOR 50V 0.01U	1	
C2508		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C2509		ECUM1H181JCN	C.CAPACITOR CH 50V 180P	1	
C3001		ECEA1CK470U	E.CAPACITOR 16V 47U	1	
C3002		ECEA0JU471	E.CAPACITOR 6.3V 470U	1	
C3003,04		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C3010		ECUM1H151JCN	C.CAPACITOR CH 50V 150P	1	
C3011		ECUM1H330JCN	C.CAPACITOR CH 50V 33P	1	
C3012		ECUM1H681KBN	C.CAPACITOR CH 50V 680P	1	
C3013		ECEA1HKN010	E.CAPACITOR 50V 1U	1	
C3014		ECUM1H330JCN	C.CAPACITOR CH 50V 33P	1	
C3015		VCYD1E103KR	S.CAPACITOR 25V 0.01U	1	
C3016		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C3017,18		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C3019		ECUM1H220JCN	C.CAPACITOR CH 50V 22P	1	
C3027		ECUM1H181JCN	C.CAPACITOR CH 50V 180P	1	
C3053		ECEA0JK101U	E.CAPACITOR 6.3V 100U	1	
C3064		ECQB1H103JH	P.CAPACITOR 50V 0.01U	1	
C3067,68		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C3070		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3076		ECUM1H180JCN	C.CAPACITOR CH 50V 18P	1	
C3081		ECEA1CK220	E.CAPACITOR 16V 22U	1	
C3101		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C3102		ECEA1CK470U	E.CAPACITOR 16V 47U	1	
C3103,04		ECUM1H332KBN	C.CAPACITOR CH 50V 3300P	2	
C3105		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C4001		ECQB1H103JH	P.CAPACITOR 50V 0.01U	1	
C4002		ECEA16M33	E.CAPACITOR 16V 33U	1	
C4003		ECKF1H102ZF	C.CAPACITOR 50V 1000P	1	
C4004		ECQP1222JZ	P.CAPACITOR 0.0022U	1	
C4005		ECCD2H121K	C.CAPACITOR 500V 120P	1	
C4006		ECEA1CK470U	E.CAPACITOR 16V 47U	1	
C4007		ECEA1CK330U	E.CAPACITOR 16V 33U	1	
C4008		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C4009		ECEA1EK4R7	E.CAPACITOR 25V 4.7U	1	
C4011		ECQB1H223JH	P.CAPACITOR 50V 0.022U	1	
C4012		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C4013		ECUM1H681JN	C.CAPACITOR CH 50V 680P	1	
C4014		ECUM1H182KBN	C.CAPACITOR CH 50V 1800P	1	
C4015		ECEA16M10	E.CAPACITOR 16V 10U	1	
C4016		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C4017		ECEA10M47	E.CAPACITOR 10V 47U	1	
C4018		ECQB1H822JH	P.CAPACITOR 50V 8200P	1	
C4019		ECEA1CKS100	E.CAPACITOR 16V 10U	1	
C4020		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C4021		ECEA1AK101	E.CAPACITOR 10V 100U	1	
C4022		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C4023		ECUM1H221JCN	C.CAPACITOR CH 50V 220P	1	
C4024,25		ECUM1H101JCN	C.CAPACITOR CH 50V 100P	2	
C4026		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C4029		ECQB1H153JH	P.CAPACITOR 50V 0.015U	1	
C4032		ECEA1CK470U	E.CAPACITOR 16V 47U	1	
C4033		ECQB1H102JH	P.CAPACITOR 50V 1000P	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C4034		ECUM1H681KBN	C.CAPACITOR CH 50V 680P	1	
C4036		ECCF1H681J	C.CAPACITOR 50V 680P	1	
C6001,02		ECEA0JK470	E.CAPACITOR 6.3V 47U	2	
C6005		ECEA1CK330U	E.CAPACITOR 16V 33U	1	
C6006		ECEA0JK330	E.CAPACITOR 6.3V 33U	1	
C6007		VCYD1C104MR1	S.CAPACITOR 16V 0.1U	1	
C6008		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C6010		ECUM1H332KBN	C.CAPACITOR CH 50V 3300P	1	
C6011,12		ECUM1H271JCN	C.CAPACITOR CH 50V 270P	2	
C6013		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	
C6014		ECEA1CK220	E.CAPACITOR 16V 22U	1	
C6015		ECEA1CK330U	E.CAPACITOR 16V 33U	1	
C6021		ECUM1H332KBN	C.CAPACITOR CH 50V 3300P	1	
C6022		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	
C6025		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C6101		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C6102		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C6103		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C6104		ECUM1H181JCN	C.CAPACITOR CH 50V 180P	1	
C6105		ECUM1H101JCN	C.CAPACITOR CH 50V 100P	1	
C6106		ECUM1H150JCN	C.CAPACITOR CH 50V 15P	1	
C6801		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C7401		ECEA0JU221	E.CAPACITOR 6.3V 220U	1	
C7402		EECS5R5V473	E.CAPACITOR 5.5V 0.047	1	
C7409		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C7421		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C7422		ECKF1H272KB	C.CAPACITOR 50V 2700P	1	
C7651		ECEA1CKN100	E.CAPACITOR 16V 10U	1	
C7653		ECQB1H392JH	P.CAPACITOR 50V 3900P	1	
C7654		ECQB1H103JH	P.CAPACITOR 50V 0.01U	1	
C7655,56		ECEA1HK010	E.CAPACITOR 50V 1U	2	
C7657		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C7658		ECQP1H562JZ	P.CAPACITOR 50V 5600P	1	
C7659		ECQB1H272JH	P.CAPACITOR 50V 2700P	1	
C7661		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C7662		ECQV1H683JZ	P.CAPACITOR 50V 0.068U	1	
C7663		ECQV1H823JZ	P.CAPACITOR 50V 0.082U	1	
C7664		ECQB1H273JH	P.CAPACITOR 50V 0.027U	1	
C7665,66		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C7667		ECEA1HKA100	E.CAPACITOR 50V 10U	1	
C7675		ECEA1HKN010	E.CAPACITOR 50V 1U	1	
C7676,77		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C7678		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C7680		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C7681,82		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	2	
D301		MA4091M	DIODE	1	
D710		MA3100L	DIODE	1	
D771		MA151WK	DIODE	1	
D772		MA165	DIODE	1	
D773		MA151K	DIODE	1	
D805		MA165	DIODE	1	
D1001,02		MA165	DIODE	2	
D2003,04		MA165	DIODE	2	
D2007-10		MA165	DIODE	4	
D2407		MA204WK	DIODE	1	
D2408		MA165	DIODE	1	
D2501		MA165	DIODE	1	
D3001		MA165	DIODE	1	
D3009		MA165	DIODE	1	
D3101		MA165	DIODE	1	
D3102		MA27WA	DIODE	1	
D4003		MA165	DIODE	1	
D6001		MA4051	DIODE	1	
D6002-04		MA165	DIODE	3	
D6005		ERA15-01	DIODE	1	
D6006		MA165	DIODE	1	
D6008		MA723	DIODE	1	
D6009		MA4150L	DIODE	1	
D6021		MA723	DIODE	1	
D6801		MA165	DIODE	1	
D7401,02		MA723	DIODE	2	
D7407		MA27TB	DIODE	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
D7506		MA165	DIODE	1	
DL801		VLD0089	DELAY	1	
DL802		EFDBR124A53T	DELAY	1	
FL301		ELB4M022	FILTER	1	
FL302		VLF0499	FILTER	1	
FL303		VLF0727	FILTER	1	
FL801		ELB4W002	FILTER	1	
IC301		VEFH03D	HIC	1	
IC302		AN3495K	IC	1	
IC303		MSM6965-3RS	IC	1	
IC701		M51366SP	IC	1	
IC801		VEFH04F	P.C.BOARD	1	
IC2001		MN6740VCPK	IC	1	
IC2101		BA6435S	IC	1	
IC2201		AN3814K	IC	1	
IC2301		AN6561L	IC	1	
IC2302		AN6913L	IC	1	
IC2501		CF77384NS	IC	1	
IC2502		BA6305F	IC	1	
IC3101		BA7004	IC	1	
IC4001		BA7766AS	IC	1	
IC4002		MC14053BF	IC	1	
IC6003		MN12821	IC	1	(R)
IC6801		MN15522VMS	IC	1	
IC7651		AN5421	IC	1	
IC7652		AN5043	IC	1	
IC7653		MN4066BS	IC	1	
L301		VLQEL05F101K	COIL 100UH	1	
L302		VLQEL05F220K	COIL 22UH	1	
L303		VLQEL05F101K	COIL 100UH	1	
L304		VLQEL05F121K	COIL 120UH	1	
L305		VLQEL05F680K	COIL 68UH	1	
L306		VLQEL05F101K	COIL 100UH	1	
L307		VLQEL05F151K	COIL 150UH	1	
L308		VLQEL05F270K	COIL 27UH	1	
L309,10		VLQEL05F101K	COIL 100UH	2	
L701,02		ELESP680KA	COIL 68UH	2	
L711		VLQ0305J1R2	COIL 1.2UH	1	
L714		VLQ0305J1R2	COIL 1.2UH	1	
L715		VLQ0213K680	COIL 68UH	1	
L717,18		ELESP680KA	COIL 68UH	2	
L719		ELESP120KA	COIL 12UH	1	
L720		ELESP680KA	COIL 68UH	1	
L781		ELESP330KA	COIL 33H	1	
L801		VLQEL05F101K	COIL 100UH	1	
L802,03		VLQEL05F150K	COIL 15UH	2	
L804		VLQ0213K150	COIL 15UH	1	
L805		VLQEL05F101K	COIL 100UH	1	
L806		VLQEL05F681K	COIL 680UH	1	
L808		VLQEL05F470K	COIL 47UH	1	
L809		VLQEL05F331K	COIL 330UH	1	
L810		VLQEL05F101K	COIL 100UH	1	
L811		VLQEL05F470K	COIL 47UH	1	
L812		VLQEL05F681K	COIL 680UH	1	
L2002		VLP0074	COIL	1	
L2003		VLQEL05F101K	COIL 100UH	1	
L2101		VLQEL05F102K	COIL 1000UH	1	
L3001-03		VLQEL05F101K	COIL 100UH	3	
L3005		VLQEL05F120K	COIL 12UH	1	
L3006		VLQEL05F6R8K	COIL 6.8UH	1	
L3007		VLQEL05F101K	COIL 100UH	1	
L3008		VLQEL05F3R3K	COIL 3.3UH	1	
L3011		VLQEL05F5R6K	COIL 5.6UH	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
L3101		VLQEL05F101K	COIL 100UH	1	
L4001		VLQEL07F822J	COIL 8200UH	1	
L4002		VLQEL05F471K	COIL 470UH	1	
L6101		VLQEL05F101K	COIL 100UH	1	
L7401		VLQEL05F1R0K	COIL 1UH	1	
L7402		VLQEL05F101K	COIL 100UH	1	
L7404		VLQEL05F1R0K	COIL 1UH	1	
P001		VJS1237T	CONNECTOR	1	
P006		VJS1902	CONNECTOR (FEMALE)	1	
P501		VJS1931T	CONNECTOR (FEMALE)	1	
P1001		VJF0171T	CONNECTOR	1	
P1001		VJP1393T	CONNECTOR(MALE) 13P	1	
P1101		VJF0171T	CONNECTOR	1	
P1502		VJS1141T	CONNECTOR (FEMALE)	1	
P2001		VJP1932T	CONNECTOR (MALE)	1	
P2001		VJS1932T	CONNECTOR (FEMALE)	1	
P2201		VJP1237T	CONNECTOR(MALE) 10P	1	
P2201		VJS1237T	CONNECTOR	1	
P3001		VJP1931T	CONNECTOR (MALE)	1	
P3001		VJS1931T	CONNECTOR (FEMALE)	1	
P4001		VJP2622	CONNECTOR (MALE)	1	
P4002		VJP1229T	CONNECTOR(MALE) 2P	1	
P4002		VJS1229T	CONNECTOR (FEMALE)	1	
P4003		VJP1231T	CONNECTOR(MALE) 4P	1	
P4003		VJS1231T	CONNECTOR (FEMALE)	1	
P6001		VJS2571A012	CONNECTOR (FEMALE)	1	
P6002		VJS2571A004	CONNECTOR (FEMALE)	1	
P6202		VJS1231T	CONNECTOR (FEMALE)	1	
P7401		VJS1662	CONNECTOR (FEMALE)	1	
P7402		VJS2571A015	CONNECTOR (FEMALE)	1	
PK701		VJR0231	PACK PIN	1	
PK702,03		VJR0406	PACK PIN	2	
PK704		VJR0231	PACK PIN	1	
PK2201		VJR0452	PACK PIN	1	
PK2202		VJR0348	PACK PIN	1	
PK6101		VJR0277	PACK PIN	1	
Q301		2SB709	TRANSISTOR CHIP	1	(Q,R,S)
Q302,03		2SC2295	TRANSISTOR CHIP	2	(B,C)
Q304		2SD601	TRANSISTOR CHIP	1	(Q,R,S)
Q703		2SD601	TRANSISTOR	1	(S,T)
Q710		2SC1047	TRANSISTOR	1	
Q712		2SD638	TRANSISTOR	1	
Q713		2SD1328	TRANSISTOR	1	
Q771		2SD601	TRANSISTOR	1	(S,T)
Q772		2SD601	TRANSISTOR CHIP	1	(S,T)
Q801		2SD601	TRANSISTOR CHIP	1	(Q,R,S)
Q802		2SC2295	TRANSISTOR CHIP	1	(B,C)
Q804		2SB709	TRANSISTOR CHIP	1	(Q,R,S)
Q2001		2SD601	TRANSISTOR CHIP	1	(Q,R,S)
Q2002		2SD1330	TRANSISTOR	1	(S,T)
Q2301		2SD601	TRANSISTOR CHIP	1	(Q,R,S)
Q2302,03		2SB709	TRANSISTOR CHIP	2	(Q,R,S)
Q3001		2SC2295	TRANSISTOR	1	
Q3003		2SD601	TRANSISTOR CHIP	1	
Q3004		2SB709	TRANSISTOR CHIP	1	(Q,R,S)
Q3006		2SC2295	TRANSISTOR	1	
Q3007		2SB709	TRANSISTOR CHIP	1	(Q,R,S)
Q3101		2SD601	TRANSISTOR CHIP	1	
Q4001		2SD602	TRANSISTOR	1	(R)
Q4002		2SB790	TRANSISTOR	1	(Q,R,S)
Q6001		2SD893	TRANSISTOR	1	
Q6002,03		2SD973	TRANSISTOR	2	(S)
Q6004		2SD638	TRANSISTOR	1	
Q6006		2SB643	TRANSISTOR	1	
Q6007		2SB710	TRANSISTOR	1	(R,S)
Q6008		2SD1273	TRANSISTOR	1	(P,O)

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
Q6009		2SB710	TRANSISTOR	1	(R,S)
Q6010		2SD637	TRANSISTOR	1	
Q6011		2SB709	TRANSISTOR CHIP	1	
Q6101		2SC2206	TRANSISTOR	1	(B,C)
QR301-03		UN2212	TRANSISTOR-RESISTOR	3	
QR701,02		UN2213	TRANSISTOR-RESISTOR	2	
QR713		UN2211	TRANSISTOR-RESISTOR	1	
QR801		UN2212	TRANSISTOR-RESISTOR	1	
QR1001		UN2213	TRANSISTOR-RESISTOR	1	
QR2002		DTC363EK	COMBI.TR-R	1	
QR2004		2SD1676	COMBINATION PARTS	1	
QR2005		UN2213	TRANSISTOR-RESISTOR	1	
QR2405		UN2213	TRANSISTOR-RESISTOR	1	
QR2502		DTC363EK	COMBI.TR-R	1	
QR3004		UN2111	TRANSISTOR-RESISTOR	1	
QR3005		UN2213	TRANSISTOR-RESISTOR	1	
QR3006,07		DTC363EK	COMBI.TR-R	2	
QR3008		UN2213	TRANSISTOR-RESISTOR	1	
QR3010		UN2213	TRANSISTOR-RESISTOR	1	
QR4001,02		UN2213	TRANSISTOR-RESISTOR	2	
QR6002		UN2119	TRANSISTOR-RESISTOR	1	
QR6003		UN2113	TRANSISTOR-RESISTOR	1	
QR6004		UN2213	TRANSISTOR-RESISTOR	1	
QR6006		UN2213	TRANSISTOR-RESISTOR	1	
QR6007		UN2212	TRANSISTOR-RESISTOR	1	
QR6008		UN2213	TRANSISTOR-RESISTOR	1	
QR6011,12		UN2212	TRANSISTOR-RESISTOR	2	
QR6201		UN2113	TRANSISTOR-RESISTOR	1	
QR6202		UN2213	TRANSISTOR-RESISTOR	1	
QR7401		UN2211	TRANSISTOR-RESISTOR	1	
			RESISTORS		
R301		ERJ6GMYJ122	M.RESISTOR CH 1/10W 1.2K	1	
R302		ERJ6GMYJ391	M.RESISTOR CH 1/10W 390	1	
R303		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R304		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R305		ERJ6GMYJ824	M.RESISTOR CH 1/10W 820K	1	
R306		ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R307		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R308		ERJ6GMYJ123	M.RESISTOR CH 1/10W 12K	1	
R309		ERJ6GMYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R310		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R311,12		ERJ6GMYJ392	M.RESISTOR CH 1/10W 3.9K	2	
R313		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R314		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R315		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R317		ERJ6GMYJ471	M.RESISTOR CH 1/10W 470	1	
R318		ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R319		ERJ6GMYJ273	M.RESISTOR CH 1/10W 27K	1	
R320		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R325		ERJ6GMYJ151	M.RESISTOR CH 1/10W 150	1	
R326		ERJ6GMYJ822	M.RESISTOR CH 1/10W 8.2K	1	
R327		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R328		ERJ6GMYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R329		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R330		ERJ6GMYJ183	M.RESISTOR CH 1/10W 18K	1	
R331		ERJ6GMYJ561	M.RESISTOR CH 1/10W 560	1	
R332		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R334,35		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	2	
R338		ERJ6GMYJ124	M.RESISTOR CH 1/10W 120K	1	
R712		ERJ6GEYJ682	M.RESISTOR CH 1/10W 6.8K	1	
R713		ERJ6GEYJ681	M.RESISTOR CH 1/10W 680	1	
R714		ERD2FCG330	C.RESISTOR 2W 33	1	
R715		ERJ6GEYJ271	M.RESISTOR CH 1/10W 270	1	
R716		ERJ6GEYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R717		ERJ6GEYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R718		ERJ6GEYJ754	M.RESISTOR CH 1/10W 750K	1	
R719		ERJ6GEYJ682	M.RESISTOR CH 1/10W 6.8K	1	
R720		ERJ6GEYJ822	M.RESISTOR CH 1/10W 8.2K	1	
R721		ERJ6GEYJ392	M.RESISTOR CH 1/10W 3.9K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R723		ERJ6GEYJ183	M.RESISTOR CH 1/10W 180K	1	
R724		ERJ6GEYJ101	M.RESISTOR CH 1/10W 100	1	
R725		ERJ6GEYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R726		ERJ6GEYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R727		ERJ6GEYJ471	M.RESISTOR CH 1/10W 470	1	
R728		ERDS2TJ471	C.RESISTOR 1/4W 470	1	
R729,30		ERJ6GEYJ331	M.RESISTOR CH 1/10W 330	2	
R737		ERJ6GEYJ274	M.RESISTOR CH 1/10W 270K	1	
R738		ERJ6GEYJ334	M.RESISTOR CH 1/10W 330K	1	
R739		ERJ6GEYJ681	M.RESISTOR CH 1/10W 680	1	
R740		ERJ6GEYJ473	M.RESISTOR CH 1/10W 47K	1	
R743		ERJ6GEYJ470	M.RESISTOR CH 1/10W 47	1	
R744		ERJ6GEYJ821	M.RESISTOR CH 1/10W 820	1	
R745		ERJ6GEYJ331	M.RESISTOR CH 1/10W 330	1	
R746		ERDS2TJ181	C.RESISTOR 1/4W 180	1	
R747		ERJ6GEYJ471	M.RESISTOR CH 1/10W 470	1	
R750		ERJ6GEYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R751		ERJ6GEYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R756		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R757,58		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	2	
R763		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R764		ERJ6GEYJ822	M.RESISTOR CH 1/10W 8.2K	1	
R772		ERJ6GEYJ271	M.RESISTOR CH 1/10W 270	1	
R773		ERJ6GEYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R774		ERJ6GEYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R781		ERJ6GEYJ681	M.RESISTOR CH 1/10W 680	1	
R782		ERJ6GEYJ471	M.RESISTOR CH 1/10W 470	1	
R792		ERDS2TJ120	C.RESISTOR 1/4W 12	1	
R795		ERJ6GEYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R799		ERJ6GEYJ471	M.RESISTOR CH 1/10W 470	1	
R801		ERJ6GMYJ271	M.RESISTOR CH 1/10W 270	1	
R802		ERJ6GMYJ122	M.RESISTOR CH 1/10W 1.2K	1	
R803,04		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	2	
R805,06		ERJ6GMYJ471	M.RESISTOR CH 1/10W 470	2	
R807		ERJ6GMYJ122	M.RESISTOR CH 1/10W 1.2K	1	
R808		ERJ6GMYJ681	M.RESISTOR CH 1/10W 680	1	
R809		ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R810		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R815		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R816		ERJ6GMYJ822	M.RESISTOR CH 1/10W 8.2K	1	
R817,18		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	2	
R819		ERJ6GMYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R820		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R821		ERJ6GMYJ273	M.RESISTOR CH 1/10W 27K	1	
R822		ERJ6GMYJ183	M.RESISTOR CH 1/10W 18K	1	
R823		ERJ6GMYJ271	M.RESISTOR CH 1/10W 270	1	
R824		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R825		ERJ6GMYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R827		ERJ6GMYJ333	M.RESISTOR CH 1/10W 33K	1	
R828		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R831		ERJ6GMYJ821	M.RESISTOR CH 1/10W 820	1	
R2001,02		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	2	
R2004,05		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	2	
R2006		ERJ6GMY0R00	M.RESISTOR CH 1/10W 0.00	1	
R2007		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R2008		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R2009		ERJ6GMYJ393	M.RESISTOR CH 1/10W 39K	1	
R2010		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R2011		ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R2012		ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R2013		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R2014		ERJ6GMYJ824	M.RESISTOR CH 1/10W 820K	1	
R2015,16		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	2	
R2017		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R2018		ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R2019		ERJ6GMYJ124	M.RESISTOR CH 1/10W 120K	1	
R2020		ERJ6GMYJ821	M.RESISTOR CH 1/10W 820	1	
R2021		ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R2022		ERJ6GMYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R2023		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R2024		ERJ6GMYJ823	M.RESISTOR CH 1/10W 82K	1	
R2025		ERJ6GMYG562	M.RESISTOR CH 1/10W 5.6K	1	
R2026		ERJ6GMYG392	M.RESISTOR CH 1/10W 3.9K	1	
R2027		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R2028		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R2029		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R2030		ERJ6GMYJ123	M.RESISTOR CH 1/10W 12K	1	
R2031		ERJ6GMYJ392	M.RESISTOR CH 1/10W 3.9K	1	
R2032		ERDS2TJ471	C.RESISTOR 1/4W 470	1	
R2033		ERJ6GMYJ824	M.RESISTOR CH 1/10W 820K	1	
R2034		ERJ6GMYJ104	M.RESISTOR CH 1/10W 100K	1	
R2037		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R2038		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R2040		ERJ6GMYJ471	M.RESISTOR CH 1/10W 470	1	
R2051		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R2101-03		ERDS2TJ560	C.RESISTOR 1/4W 56	3	
R2104		ERX12SJR47E	M.RESISTOR 1/2W 0.47	1	
R2105		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R2106		ERJ6GMYG561	M.RESISTOR CH 1/10W 560	1	
R2107		ERJ6GMYG153	M.RESISTOR CH1/10W 15K	1	
R2108		ERJ6GMYG133	M.RESISTOR CH 1/10W 13K	1	
R2109		ERJ6GMYJ330	M.RESISTOR CH 1/10W 33	1	
R2201		ERDS2TJ122	C.RESISTOR 1/4W 1.2K	1	
R2202-04		ERDS2TJ150	C.RESISTOR 1/4W 15	3	
R2205		ERX12SJR68	M.RESISTOR 1/2W 0.68	1	
R2301		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R2302		ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R2303		ERJ6GMYJ393	M.RESISTOR CH 1/10W 39K	1	
R2304		ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R2305		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R2306		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R2307		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R2308		ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R2309		ERJ6GMYJ824	M.RESISTOR CH 1/10W 820K	1	
R2310		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R2311		ERJ6GMYJ824	M.RESISTOR CH 1/10W 820K	1	
R2312,13		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	2	
R2314,15		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	2	
R2316		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R2405		ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R2501		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R2503		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R2504		ERJ6GMYJ823	M.RESISTOR CH 1/10W 82K	1	
R2505		ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R2506		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R3001		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R3002		ERJ6GMYJ682	M.RESISTOR CH 1/10W 6.8K	1	
R3003		ERJ6GMYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R3019		ERDS2TJ471	C.RESISTOR 1/4W 470	1	
R3022,23		ERJ6GMYJ821	M.RESISTOR CH 1/10W 820	2	
R3027		ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R3028		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R3029		ERJ6GMYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R3030		ERJ6GMYJ750	M.RESISTOR CH 1/10W 75	1	
R3034		ERJ6GMYJ333	M.RESISTOR CH 1/10W 33K	1	
R3036		ERJ6GMYJ273	M.RESISTOR CH 1/10W 27K	1	
R3040		ERJ6GMYJ750	M.RESISTOR CH 1/10W 75	1	
R3042		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R3050,51		ERJ6GMYJ750	M.RESISTOR CH 1/10W 75	2	
R3057		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R3060		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R3062		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R3063		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R3085		ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R3086		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R3087,88		ERJ6GMYJ104	M.RESISTOR CH 1/10W 100K	2	
R3091		ERDS2TJ102	C.RESISTOR 1/4W 1K	1	
R3094		ERJ6GMY0R00	M.RESISTOR CH 1/10W 0.00	1	
R3095		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R3096		ERDS2TJ102	C.RESISTOR 1/4W 1K	1	
R3101		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R3102		ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R3103		ERJ6GMYJ392	M.RESISTOR CH 1/10W 3.9K	1	
R3104		ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R3105		ERJ6GMYJ561	M.RESISTOR CH 1/10W 560	1	
R4001		ERJ6GMYJ100	M.RESISTOR CH 1/10W 10	1	
R4002		ERJ6GMYJ153	M.RESISTOR CH 1/10W 15K	1	
R4003		ERJ6GMYG223	M.RESISTOR CH1/10W 22K	1	
R4004		ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R4007		ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R4008		ERJ6GMYJ122	M.RESISTOR CH 1/10W 1.2K	1	
R4010		ERJ6GMYJ683	M.RESISTOR CH 1/10W 68K	1	
R4012		ERJ6GMYJ331	M.RESISTOR CH 1/10W 330	1	
R4013		ERJ6GMYJ394	M.RESISTOR CH 1/10W 390K	1	
R4014		ERJ6GMYG133	M.RESISTOR CH 1/10W 13K	1	
R4015		ERJ6GMYJ822	M.RESISTOR CH 1/10W 8.2K	1	
R4016		ERJ6GMYJ105	M.RESISTOR CH 1/10W 1M	1	
R4017		ERJ6GMYJ302	M.RESISTOR CH1/10W 3K	1	
R4018		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R4019		ERJ6GMYJ563	M.RESISTOR CH 1/10W 56K	1	
R4020		ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R4021		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R4022		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R4023		ERJ6GMYG473	M.RESISTOR CH 1/10W 47K	1	
R4024,25		ERJ6GMYG104	M.RESISTOR CH 1/10W 100K	2	
R4026		ERJ6GMYJ123	M.RESISTOR CH 1/10W 12K	1	
R4027		ERJ6GMYJ153	M.RESISTOR CH 1/10W 15K	1	
R4028		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R4031		ERJ6GMYG272	M.RESISTOR CH1/10W 2.7K	1	
R4032		ERJ6GMYG622	M.RESISTOR CH1/10W 6.2K	1	
R4035		ERJ6GMYJ822	M.RESISTOR CH 1/10W 8.2K	1	
R4036		ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R4038		ERDS2TJ562	C.RESISTOR 1/4W 5.6K	1	
R4039		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R4040		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R4041		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R4042		ERJ6GMYJ681	M.RESISTOR CH 1/10W 680	1	
R4044		ERJ6GMYG103	M.RESISTOR CH 1/10W 10K	1	
R4048		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R4049		ERDS2TJ471	C.RESISTOR 1/4W 470	1	
R6001-03		ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	3	
R6004,05		ERJ6GMYJ333	M.RESISTOR CH 1/10W 33K	2	
R6006		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R6007		ERJ6GMYJ122	M.RESISTOR CH 1/10W 1.2K	1	
R6008		ERJ6GMYJ561	M.RESISTOR CH 1/10W 560	1	
R6009		ERJ6GMYJ333	M.RESISTOR CH 1/10W 33K	1	
R6010		ERJ6GMYJ561	M.RESISTOR CH 1/10W 560	1	
R6011		ERJ6GMYJ333	M.RESISTOR CH 1/10W 33K	1	
R6012		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R6013		ERJ6GMYJ683	M.RESISTOR CH 1/10W 68K	1	
R6014		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R6015		ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	1	
R6017		ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R6018		ERJ6GMYJ131	M.RESISTOR CH 1/10W 130	1	
R6019		ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R6020		ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R6021		ERJ6GMYJ201	M.RESISTOR CH 1/10W 200	1	
R6022		ERG3SJ220	M.RESISTOR 3W 22	1	
R6023		ERJ6GMYJ471	M.RESISTOR CH 1/10W 470	1	
R6024		ERJ6GMYJ561	M.RESISTOR CH 1/10W 560	1	
R6025		ERJ6GMYJ391	M.RESISTOR CH 1/10W 390	1	
R6026		ERD2FCVG220	C.RESISTOR 2W 22	1	
R6028		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R6029		ERDS2TJ152	C.RESISTOR 1/4W 1.5K	1	
R6039		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R6040		ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R6041		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R6042,43		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	2	
R6044,45		ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	2	
R6046		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R6047		ERDS1TJ332	C.RESISTOR 1/2W 3.3K	1	
R6048		ERJ6GMYJ681	M.RESISTOR CH 1/10W 680	1	
R6049		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R6050		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R6051		ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R6052		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R6053		ERG2SJ471	M.RESISTOR 2W 470	1	
R6054		ERJ6GMYJ104	M.RESISTOR CH 1/10W 100K	1	
R6055		ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	1	
R6056		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R6057		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R6059		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R6060		ERJ6GMYJ104	M.RESISTOR CH 1/10W 100K	1	
R6101		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R6102		ERJ6GEYJ333	M.RESISTOR CH 1/10W 33K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R6103,04		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	2	
R6201		ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	1	
R6202		ERJ6GMYJ183	M.RESISTOR CH 1/10W 18K	1	
R6203		ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	1	
R6204		ERJ6GMYJ391	M.RESISTOR CH 1/10W 390	1	
R6205,06		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	2	
R6801		ERDS1TJ470	C.RESISTOR 1/2W 47	1	
R7401		ERDS2TJ153	C.RESISTOR 1/4W 15K	1	
R7402		ERJ6GMYJ181	M.RESISTOR CH 1/10W 180	1	
R7651		ERJ6GEYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R7654		ERJ6GEYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R7655		ERJ6GEYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R7656		ERJ6GEYJ151	M.RESISTOR CH 1/10W 150	1	
R7657		ERJ6GEYJ104	M.RESISTOR CH 1/10W 100K	1	
R7658		ERJ6GEYJ393	M.RESISTOR CH 1/10W 39K	1	
R7659		ERJ6GEYJ822	M.RESISTOR CH 1/10W 8.2K	1	
R7661		ERJ6GEYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R7662		ERJ6GEYJ393	M.RESISTOR CH 1/10W 39K	1	
R7663		ERJ6GEYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R7664		ERJ6GEYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R7671,72		ERJ6GEYJ473	M.RESISTOR CH 1/10W 47K	2	
R7673		ERJ6GEYJ104	M.RESISTOR CH 1/10W 100K	1	
R7674		ERJ6GEYJ124	M.RESISTOR CH 1/10W 120K	1	
R7675		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R7676		ERG1SJ152	M.RESISTOR 1W 1.5K	1	
R7677		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R7678		ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	1	
R7679		ERDS2TJ100	C.RESISTOR 1/4W 10	1	
R7680		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R7681,82		ERJ6GEYJ473	M.RESISTOR CH 1/10W 47K	2	
R7683		ERJ6GEYJ563	M.RESISTOR CH 1/10W 56K	1	
R7684		ERJ6GEYJ393	M.RESISTOR CH 1/10W 39K	1	
R7691		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R7692		ERJ6GEYJ104	M.RESISTOR CH 1/10W 100K	1	
R7694		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
T703		EIV5EC005A	TRANSFORMER	1	
T704		EIV5EC007A	TRANSFORMER	1	
T711		EIS5EC008A	TRANSFORMER	1	
T4001		EIQ7QF013Q	TRANSFORMER	1	
VR301		EVNDRAA00B24	V.RESISTOR 20K	1	
VR302		EVN4YCA00B23	V.RESISTOR 2K	1	
VR701		EVNDRAA00B23	V.RESISTOR 2K	1	
VR741		EVNDRAA00B14	V.RESISTOR 10K	1	
VR751		EVNDRAA00B53	V.RESISTOR 5K	1	
VR801		EVN4YCA00B52	V.RESISTOR 500	1	
VR802		EVN4YCA00B13	V.RESISTOR 1K	1	
VR803		EVNDRAA00B14	V.RESISTOR 10K	1	
VR2001		EVNDRAA00B54	V.RESISTOR 50K	1	
VR2010		EVND1AA00B25	V.RESISTOR 200K	1	
VR2011		EVNDRAA00B15	V.RESISTOR 100K	1	
VR3012,13		EVNDRAA00B52	V.RESISTOR 500	2	
VR4002		EVNDRAA00B25	V.RESISTOR 200K	1	
VR7660		EVN38CA00B23	V.RESISTOR 2K	1	
X301		VSX0225	CRYSTAL OSCILLATOR	1	
X710		EFCH39MSP3	CRYSTAL OSCILLATOR	1	
X711		EFCS6R0MW5	CRYSTAL OSCILLATOR	1	
X712		EFCS6R0MS5	CRYSTAL OSCILLATOR	1	
X801		VSX0162	CRYSTAL OSCILLATOR	1	
X3101		VSX0099	CRYSTAL OSCILLATOR	1	
X6101		VSX0244	CRYSTAL OSCILLATOR	1	
X6801		VSX0258	CRYSTAL OSC.	1	
X7401		VSQ0565	SENSOR	1	
			MISCELLANEOUS		

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
		VMC0075	HEAT SINK FIX SPRING	1	
		VSC1689	HEAT SINK FOR IC	1	
		VSC1068	HEAT SINK FOR TR.	1	
		VSC2712	SHIELD BOX(TOP)	1	FOR TV DEMODU. PACK
		VSC2713	SHIELD BOX(MAIN)	1	FOR TV DEMODU. PACK
		VSC2714	SHIELD BOX(BOTTOM)	1	FOR TV DEMODU. PACK
		ENC17952	RF CONVERTER UNIT	1	<!>
					[SUPPLIED FROM M.B.V]
		ENV87823H3	TUNER UNIT	1	<!>
					[SUPPLIED FROM M.B.V]
		VEJ0792	ANT. TERMINAL PLATE	1	[SUPPLIED FROM M.B.V]
		VEJ0777	JACK PLATE	1	[SUPPLIED FROM M.B.V]
		VWJ14AW140MM	FLEXIBLE WIRE	1	
		VMZ1130	HEAT SINK BARRIER	1	
	■	VEP07543C	TIMER C.B.A.		NV-L25EG(NLA)
					[SUPPLIED FROM M.B.V]
			CAPACITORS		
C6701		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C6702		ECKF1H331KB	C.CAPACITOR 50V 330P	1	
C6703		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C6704		ECEA1HK3R3	E.CAPACITOR 50V 3.3U	1	
C7501		ECRHA030E41	TRIMMER	1	
C7502		ECUM1H080DCN	C.CAPACITOR CH 50V 8P	1	
C7503		ECUM1H330JCN	C.CAPACITOR CH 50V 33P	1	
C7504		ECUM1H220JCN	C.CAPACITOR CH 50V 22P	1	
C7505		ECEA0JK221	E.CAPACITOR 6.3V 220U	1	
C7506		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C7507		ECEA1HKR22	E.CAPACITOR 50V 0.22U	1	
C7508,09		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	2	
C7510		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C7511		ECEA1HKA100	E.CAPACITOR 50V 10U	1	
C7512		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C7513		ECUM1H560JCN	C.CAPACITOR CH 50V 56P	1	
C7525		ECUM1H821KBN	C.CAPACITOR CH 50V 820P	1	
C7551		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
D6701		PN323B	PHOTO DIODE	1	
D7501		MA4068	DIODE	1	
D7504		MA165	DIODE	1	
D7507		MA165	DIODE	1	
D7510,11		MA165	DIODE	2	
D7513		MA165	DIODE	1	
D7516		MA165	DIODE	1	
D7530		MA165	DIODE	1	
D7532-35		MA165	DIODE	4	
D7537-41		MA165	DIODE	5	
D7554,55		LN28RCPL	DIODE	2	
D7556		LN38GCPL	DIODE	1	
DP7501		VSL0164	DISPLAY TUBE	1	
IC6701		UPC1490HA	IC	1	
IC7501		MN187125VHP	IC	1	
IC7502		MN12261	IC	1	
IC7503		MN1280L	IC	1	
IC7504		MN1280S	IC	1	
L7501		VLQEL05F221K	COIL 220UH	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
P7501		VJS1492	CONNECTOR(FEMALE)	1	
P7502		VJS2174W	CONNECTOR	1	
P7505		VJS2652	CONNECTOR (FEMALE)	1	
Q7501		2SD601	TRANSISTOR CHIP	1	
QR7501		UN2213	TRANSISTOR-RESISTOR	1	
QR7502		UN2212	TRANSISTOR-RESISTOR	1	
QR7525		UN2216	TRANSISTOR	1	
			RESISTORS		
R6701		ERDS2TJ124	C.RESISTOR 1/4W 120K	1	FOR VEP06380G
R6701		ERDS2TJ154	C.RESISTOR 1/4W 150K	1	FOR VEP06500G
R6702		ERDS2TJ8R2	C.RESISTOR 1/4W 8.2	1	
R6703		ERDS2TJ183	C.RESISTOR 1/4W 18K	1	FOR VEP06500G
R7501		ERJ6GMYJ122	M.RESISTOR CH 1/10W 1.2K	1	
R7502		ERJ6GMYJ224	M.RESISTOR CH 1/10W 220K	1	
R7504		ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	1	
R7505		ERJ6GMYJ104	M.RESISTOR CH 1/10W 100K	1	
R7508-10		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	3	
R7511		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R7512		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R7513		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R7514		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R7523-27		ERJ6GMYJ182	M.RESISTOR CH 1/10W 1.8K	5	
R7530-32		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	3	
R7533		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R7534		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R7535		ERDS1TJ5R1	C.RESISTOR 1/2W 5.1	1	
R7538		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R7540		ERJ6GMYJ181	M.RESISTOR CH 1/10W 180	1	
R7544		ERJ6GMYJ181	M.RESISTOR CH 1/10W 180	1	
R7546		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R7549		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R7550		ERJ6GMYJ181	M.RESISTOR CH 1/10W 180	1	
R7552-54		ERJ6GMYJ182	M.RESISTOR CH 1/10W 1.8K	3	
R7555		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R7561,62		ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	2	
SW7504		EVQ11407K	SWITCH	1	
SW7509		EVQ11407K	SWITCH	1	
SW7512		EVQ11407K	SWITCH	1	
SW7517		EVQ11407K	SWITCH	1	
SW7527		EVQ11407K	SWITCH	1	
SW7532-46		EVQ11407K	SWITCH	15	
VR6701		EVMLGGA00B15	V.RESISTOR 100K	1	FOR VEP06380G
X7501		VSX0140	CRYSTAL OSCILLATOR	1	
X7502		VSX0094	CRYSTAL OSCILLATOR	1	
			MISCELLANEOUS		
		VMD1361	LED HOLDER	1	
		VJF0706	FIP HOLDER	1	
	■	VEP07544C	TIMER C.B.A.		NV-L25B(NLA)

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
					[SUPPLIED FROM M.B.V]
			CAPACITORS		
C6701		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C6702		ECKF1H331KB	C.CAPACITOR 50V 330P	1	
C6703		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C6704		ECEA1HK3R3	E.CAPACITOR 50V 3.3U	1	
C7501		ECRHA030E41	TRIMMER	1	
C7502		ECUM1H100DCN	C.CAPACITOR CH 50V 10P	1	
C7503,04		ECUM1H220JCN	C.CAPACITOR CH 50V 22P	2	
C7505		ECEA0JK221	E.CAPACITOR 6.3V 220U	1	
C7506		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C7507		ECEA1HKR22	E.CAPACITOR 50V 0.22U	1	
C7508,09		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	2	
C7510		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C7511		ECEA1HKA100	E.CAPACITOR 50V 10U	1	
C7512		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C7513		ECUM1H560JCN	C.CAPACITOR CH 50V 56P	1	
D6701		PN323B	PHOTO DIODE	1	
D7501		MA4068	DIODE	1	
D7502		MA165	DIODE	1	
D7507,08		MA165	DIODE	2	
D7510		MA165	DIODE	1	
D7513		MA165	DIODE	1	
D7516,17		MA165	DIODE	2	
D7530		MA165	DIODE	1	
D7532-35		MA165	DIODE	4	
D7537-41		MA165	DIODE	5	
D7554,55		LN28RCPL	DIODE	2	
D7556		LN38GCPL	DIODE	1	
DP7501		VSL0164	DISPLAY TUBE	1	
IC6701		UPC1490HA	IC	1	
IC7501		M37422V4AF	IC	1	
IC7502		MN1226	IC	1	
IC7503		MN1280L	IC	1	
IC7504		MN1280S	IC	1	
L7501		VLQEL05F221K	COIL 220UH	1	
P7501		VJS1492	CONNECTOR(FEMALE)	1	
P7502		VJS2174	CONNECTOR (FEMALE)	1	
P7505		VJS2652	CONNECTOR (FEMALE)	1	
Q7501		2SD601	TRANSISTOR CHIP	1	
QR7501		UN2213	TRANSISTOR-RESISTOR	1	
QR7502		UN2212	TRANSISTOR-RESISTOR	1	
QR7525		UN2216	TRANSISTOR	1	
			RESISTORS		
R6701		ERDS2TJ124	C.RESISTOR 1/4W 120K	1	FOR VEP06380G
R6701		ERDS2TJ154	C.RESISTOR 1/4W 150K	1	FOR VEP06500G
R6702		ERDS2TJ8R2	C.RESISTOR 1/4W 8.2	1	
R6703		ERDS2TJ183	C.RESISTOR 1/4W 18K	1	FOR VEP06500G
R7501		ERJ6GMYJ122	M.RESISTOR CH 1/10W 1.2K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R7502		ERJ6GMYJ224	M.RESISTOR CH 1/10W 220K	1	
R7503		ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R7504		ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	1	
R7505		ERJ6GMYJ104	M.RESISTOR CH 1/10W 100K	1	
R7508-10		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	3	
R7511		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R7512		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R7513		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R7514		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R7515-22		ERJ6GMYJ683	M.RESISTOR CH 1/10W 68K	8	
R7523-27		ERJ6GMYJ182	M.RESISTOR CH 1/10W 1.8K	5	
R7531,32		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	2	
R7533		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R7534		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R7535		ERDS1TJ5R1	C.RESISTOR 1/2W 5.1	1	
R7538		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R7540		ERJ6GMYJ181	M.RESISTOR CH 1/10W 180	1	
R7541		ERJ6GMYK106	M.RESISTOR CH 1/10W 10M	1	
R7542		ERJ6GMYJ105	M.RESISTOR CH 1/10W 1M	1	
R7544		ERJ6GMYJ181	M.RESISTOR CH 1/10W 180	1	
R7546		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R7550		ERJ6GMYJ181	M.RESISTOR CH 1/10W 180	1	
R7552-54		ERJ6GMYJ182	M.RESISTOR CH 1/10W 1.8K	3	
R7555		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R7556		ERJ6GMYJ333	M.RESISTOR CH 1/10W 33K	1	
R7557,58		ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	2	
SW7504		EVQ11407K	SWITCH	1	
SW7509		EVQ11407K	SWITCH	1	
SW7512		EVQ11407K	SWITCH	1	
SW7517		EVQ11407K	SWITCH	1	
SW7527		EVQ11407K	SWITCH	1	
SW7532-45		EVQ11407K	SWITCH	14	
VR6701		EVMLGGA00B15	V.RESISTOR 100K	1	FOR VEP06380G
X7501		VSX0140	CRYSTAL OSCILLATOR	1	
X7502		VSX0094	CRYSTAL OSCILLATOR	1	
			MISCELLANEOUS		
		VMD1361	LED HOLDER	1	
		VJF0706	FIP HOLDER	1	
	■	VEP05137D	HEAD AMP C.B.A.		NV-L25EG(NLA)
		VEP05137A			NV-L25B(NLA)
			CAPACITORS		
C501		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C502		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C505		ECUM1H560JCN	C.CAPACITOR CH 50V 56P	1	
C507		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C508		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C509		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C510,11		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C512		ECUM1H820JCN	C.CAPACITOR CH 50V 82P	1	
C513		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C514		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C515		ECUM1H181JCN	C.CAPACITOR CH 50V 180P	1	
C516		ECUM1H330JCN	C.CAPACITOR CH 50V 33P	1	
C517		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C518		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C522		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	NV-L25B

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C523		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C524		ECUM1H330JCN	C.CAPACITOR CH 50V 33P	1	
C525		VCYD1C104MR1	S.CAPACITOR 16V 0.1U	1	
C526		ECUM1H330JCN	C.CAPACITOR CH 50V 33P	1	NV-L25B
C527		VCYD1C104MR1	S.CAPACITOR 16V 0.1U	1	NV-L25B
C528		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C529		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C530		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C531		ECUM1H470JCN	C.CAPACITOR CH 50V 47P	1	
C532		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C533		ECUM1H470JCN	C.CAPACITOR CH 50V 47P	1	
C534,35		ECEA1CK100	E.CAPACITOR 16V 10U	2	
C536		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C537		ECUM1H470JCN	C.CAPACITOR CH 50V 47P	1	
C538		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C539		ECUM1H470JCN	C.CAPACITOR CH 50V 47P	1	
C540		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C541		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C542		ECCF1H080DC	C.CAPACITOR 50V 8P	1	
IC501		BA7274S	IC	1	
L501		VLQEL05F101K	COIL 100UH	1	
L503		VLQEL05F270K	COIL 27UH	1	
L504		VLQEL05F101K	COIL 100UH	1	
L505		VLQEL05F820K	COIL 82UH	1	
L506		VLQEL05F151K	COIL 150UH	1	
P002		VJS1449	CONNECTOR(FEMALE)	1	
P501		VJP1931T	CONNECTOR (MALE)	1	
Q501		2SB709	TRANSISTOR CHIP	1	(Q,R,S)
Q502		2SC2295	TRANSISTOR	1	
QR501		DTC363EK	TRANSISTOR-RESISTOR	1	
			RESISTORS		
R501		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R502		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R503		ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R504		ERJ6GMYJ391	M.RESISTOR CH 1/10W 390	1	
R506		ERJ6GMYJ204	M.RESISTOR CH1/10W 200K	1	
R507		ERJ6GMYJ561	M.RESISTOR CH 1/10W 560	1	
R508		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R509		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R510		ERJ6GMYJ331	M.RESISTOR CH 1/10W 330	1	
R512		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R513		ERJ6GMYJ330	M.RESISTOR CH 1/10W 33	1	
R515		ERJ6GMYJ330	M.RESISTOR CH 1/10W 33	1	
R518		ERJ6GMYJ330	M.RESISTOR CH 1/10W 33	1	
R519		ERJ6GMYJ471	M.RESISTOR CH 1/10W 470	1	
R520		ERJ6GMYJ471	M.RESISTOR CH 1/10W 470	1	NV-L25B
R523		ERJ6GMYJ821	M.RESISTOR CH 1/10W 820	1	
R524		ERJ6GMYJ100	M.RESISTOR CH 1/10W 10	1	
R525		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R526		ERJ6GMYJ100	M.RESISTOR CH 1/10W 10	1	
R527		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R528		ERJ6GMYJ821	M.RESISTOR CH 1/10W 820	1	
R529		ERJ6GMYJ561	M.RESISTOR CH 1/10W 560	1	
R530		ERJ6GMYJ100	M.RESISTOR CH 1/10W 10	1	
R531		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R532		ERJ6GMYJ100	M.RESISTOR CH 1/10W 10	1	
R533		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R534-36		ERJ6GMYJ561	M.RESISTOR CH 1/10W 560	3	
VR501		EVND1AA00B23	V.RESISTOR 2K	1	
VR502		EVND1AA00B13	V.RESISTOR 1K	1	
			MISCELLANEOUS		
		VSC2668	SHIELD BOX(TOP)	1	
		VSC2669	SHIELD BOX(BOTTOM)	1	
		VSC2670	SHIELD BOX(MAIN)	1	
	■	VEP06558G	OPERATION C.B.A.		NV-L25EG(NLA)
					[SUPPLIED FROM M.B.V]
	■	VEP06558A	OPERATION C.B.A.		NV-L25B(NLA)
					[SUPPLIED FROM M.B.V]
			CAPACITORS		
C4301		ECEA1CKS100	E.CAPACITOR 16V 10U	1	
C4302		ECEA1CK470	E.CAPACITOR 16V 47U	1	
C6201		ECEA1CK470U	E.CAPACITOR 16V 47U	1	
C6202		ECEA1HK010	E.CAPACITOR 50V 1U	1	
D6203		LN28RCPP	LED	1	
J4301		VJJ0214	MIC JACK	1	
P6201		VJP2652	CONNECTOR (MALE)	1	
P6202		VJP1244T	CONNECTOR(MALE) 4P	1	
PP6201		VJP2648	CONNECTOR (MALE)	1	
PS4301		VJS2648	CONNECTOR (FEMALE)	1	
Q4301		2SC2405	TRANSISTOR	1	
Q4302		2SA1034	TRANSISTOR	1	
			RESISTORS		
R4301		ERJ6GMYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R4302		ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	1	
R4303		ERJ6GMYJ153	M.RESISTOR CH 1/10W 15K	1	
R4304		ERJ6GMYJ104	M.RESISTOR CH 1/10W 100K	1	
R4305		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R4306		ERJ6GMYJ331	M.RESISTOR CH 1/10W 330	1	
R4307,08		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	2	
R6201		ERJ6GMYJ181	M.RESISTOR CH 1/10W 180	1	
R6202		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R6207		ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	1	
SW6201-07		EVQ11407K	SWITCH	7	
SW6210		EVQ11407K	SWITCH	1	NV-L25B

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
SW6211		VSS0187	SWITCH	1	
SW6213		VSS0236	SWITCH	1	
VR3004		EWAKFKXC3B24	V.RESISTOR 20K	1	
			MISCELLANEOUS		
		VMD0504	LED HOLDER	1	
		VGU4553	KNOB	2	
	■	VEP01379D	POWER C.B.A.		NV-L25EG(NLA)
					[SUPPLIED FROM M.B.V]
	■	VEP01379C	POWER C.B.A.		NV-L25B(NLA)
					[SUPPLIED FROM M.B.V]
			CAPACITORS		
C1101		ECQU2A154MNB	P.CAPACITOR 100V 0.15U	1	NV-L25EG
C1101		ECQU2A563MNB	P.CAPACITOR 100V 0.056U	1	NV-L25B
C1102		ECQU2A104MN	P.CAPACITOR 100V 0.1U	1	NV-L25EG
C1102		ECQU2A333MN	P.CAPACITOR 100V 0.033U	1	NV-L25B
C1108		ECOS2GU820	C.CAPACITOR 400V 82P	1	
C1109		ECEA2GG010	E.CAPACITOR 400V 1U	1	
C1110		ECQE6473JZ	P.CAPACITOR 630V 0.047U	1	
C1111		ECKD3D331KBN	C.CAPACITOR 2KV 330P	1	
C1113		ECQB1H472KZ	P.CAPACITOR 50V 4700P	1	
C1114		ECEA1CGE470	E.CAPACITOR 16V 47U	1	
C1115		ECQB1H472KZ	P.CAPACITOR 50V 4700P	1	
C1117		ECQP1101JZ	P.CAPACITOR 100V 100P	1	
C1118		ECEA1HGE101	E.CAPACITOR 50V 100U	1	
C1119,20		ECEA1DFZ681X	E.CAPACITOR 20V 680U	2	
C1121		ECEA1HGE100	E.CAPACITOR 50V 10U	1	
C1122		ECEA1AFZ331X	E.CAPACITOR 10V 330U	1	
C1123		ECEA1HGE100	E.CAPACITOR 50V 10U	1	
C1124,25		ECEA1AGE101	E.CAPACITOR 10V 100U	2	
C1126		ECEA1CGE470	E.CAPACITOR 16V 47U	1	
C1127		ECEA0JFZ471	E.CAPACITOR 6.3V 470U	1	
C1128-31		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	4	
C1132		ECEA1CGE100	E.CAPACITOR 16V 10U	1	
C1134,35		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	2	
C1136		ECQV1H105JZ	P.CAPACITOR 50V 1U	1	
C1137		ECQV1H223JS	P.CAPACITOR 50V 0.022U	1	
C1142		VCC0021	.CAPACITOR V	1	
C1145		VCC0021	.CAPACITOR V	1	
C1147		VCC0022	C.CAPACITOR 1000P	1	
C1149		ECKF1H821KB	C.CAPACITOR 50V 820P	1	
D1102		S1WBA60	DIODE	1	
D1103		VSD0002	DIODE	1	
D1104		AP01C	DIODE	1	
D1105		MA178	DIODE	1	
D1106		MA4039	DIODE	1	
D1107		MA165	DIODE	1	
D1108		ERA22-02	DIODE	1	
D1109		RL2ZP	DIODE	1	
D1110		MA185	DIODE	1	
D1111		11EQS04	DIODE	1	
D1112		ERB83-004L17	DIODE	1	
D1113		MA2200B	DIODE	1	
D1114		MA4130L	DIODE	1	
IC1101		STRD1816	IC	1	
IC1102		STK5392	IC	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
L1101		ELF18D290A	FILTER	1	NV-L25EG
L1102		ELF18D290A	FILTER	1	
L1103		VLQ0335	COIL	1	
P1101		VJP1394T	CONNECTOR(MALE)	1	
P1102		VJS2625	CONNECTOR (FEMALE)	1	
Q1102		2SD1330	TRANSISTOR	1	
			RESISTORS		
R1101		ERC12AGM334	S.RESISTOR 1/2W 330K	1	NV-L25EG
R1102,03		ERG2SJ823	M.RESISTOR 2W 82K	2	
R1104		ERDS2TJ562	C.RESISTOR 1/4W 5.6K	1	
R1106		ERG3ANJ683	M.RESISTOR 3W 68K	1	
R1108		ERD2FCVG182	C.RESISTOR 1/4W 1.8K	1	
R1111		ERG2SJ181	M.RESISTOR 2W 180	1	
R1113		ERG1SJ182E	M.RESISTOR 1W 1.8K	1	
R1114		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R1118		ERDS2TJ1R0	C.RESISTOR 1/4W 1.0	1	
R1123,24		ERDS2TJ153	C.RESISTOR 1/4W 15K	2	
R1125		ERW1PK2R2	WIRE WOUND 2W 2.2	1	
T1101		VLT0571	TRANSFORMER	1	
			MISCELLANEOUS		
		VJF0318	FUSE HOLDER	2	<!>
		VMZ1183	CAPACITOR COVER	1	
		VMZ1184	CAPACITOR COVER	1	
	■	VEP66079F	REMOTE CONTROLLER C.B.A.		NV-L25B(NLA)
		VEP66079G			NV-L25EG(NLA)
			CAPACITORS		
C6801		ECEA1AKA470	E.CAPACITOR 10V 47U	1	
C6802		ECUM1E104ZFM	C.CAPACITOR CH 25V 0.1U	1	
C6803		ECEV1CAN4R7	E.CAPACITOR 16V 4.7U	1	
C6804		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C6805,06		ECUM1H330JCN	C.CAPACITOR CH 50V 33P	2	
C6807-09		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	3	
C6810-12		ECUM1E104ZFM	C.CAPACITOR CH 25V 0.1U	3	
D1		LN247RCALUVT	DIODE	1	
D6801		SE303ACYTF	DIODE	1	
D6802-12		MA221	DIODE	11	
D6813		MA221	DIODE	1	NV-L25EG
D6818		MA221	DIODE	1	NV-L25EG
IC6801		MN158453VHM	IC	1	
IC6802		AN8355S	IC	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
L6801		ELT3K017B	COIL	1	
Q1		PN147-RSVT	TRANSISTOR	1	
Q6801		2SB710	TRANSISTOR CHIP	1	(Q,R,S)
Q6802		2SB709	TRANSISTOR CHIP	1	(Q,R,S)
Q6803		2SD601	TRANSISTOR CHIP	1	(Q,R,S)
QR6802		FA1A4M	RESISTOR-RESISTOR	1	
QR6803		FA1L4Z	TRANSISTOR-RESISTOR	1	
			RESISTORS		
R14		ERJ6GMYJ473	CHIP 1/10W 47K	1	
R15		ERJ6GMYJ153	M.RESISTOR CH1/10W 15K	1	
R16		ERJ6GMYJ334	M.RESISTOR CH1/10W 330K	1	
R6801		ERJ6GMYJ224	CHIP 1/10W 220K	1	
R6802-04		ERJ6GMYJ474	CHIP 1/10W 470K	3	
R6805,06		ERJ6GMYJ682	CHIP 1/10W 6.8K	2	
R6807		ERJ8GCYJ120	M.RESISTOR CH 1/8W 12	1	
R6808		ERJ8GCYJ150	M.RESISTOR CH 1/8W 15	1	
R6809		ERJ6GMYJ222	CHIP 1/10W 2.2K	1	
R6810		ERJ6GMYJ224	CHIP 1/10W 220K	1	
R6811		ERJ6GMYJ684	CHIP 1/10W 680K	1	
R6812		ERJ6GMYJ563	CHIP 1/10W 56K	1	
R6813		ERJ6GMYJ120	CHIP 1/10W 12	1	
SN6801		VSQ0567	SENSOR	1	
VR6801		EVNDXAA03B34	V.RESISTOR 30K	1	
X6801		VSX0245	CRYSTAL OSCILLATOR	1	
X6802		EFBAL30D001K	CRYSTAL OSCILLATOR	1	
	■	VEP00K88C	FE HEAD C.B.A.		(NLA)
			CAPACITORS		
C1401		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C1402		ECQB1H472JH	P.CAPACITOR 50V 4700P	1	
C1403		ECQB1H333KH	P.CAPACITOR 50V 0.033U	1	
CR1401		EXED103Z333	C & R	1	
L1401		VLQEL05F101K	COIL 100UH	1	
P1502		VJP1148	CONNECTOR	1	
Q1401		2SD636	TRANSISTOR	1	(R)
T1401		EIQ7QF012Q	TRANSFORMER	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
	■	VXA3554	MECHANISM CONNECTION C.B.A.		(NLA)
P1504		VJS2342W	CONNECTOR 13P	1	
P1505		VJP1242T	CONNECTOR 2P	1	
IC1501		ON2170	PHOTO COUPLER	1	
D1501		GL450	LED	1	
R1501,02		ERJ8GCYJ223	CHIP 1/8W 22K	2	
			MISCELLANEOUS		
		VMB2020	EARTH SPRING	1	
		VMD0911	LED SPRING	1	
		VSS0175	MODE SW	1	
		VES0489	SAFETY SW	1	
	■	VEK3578	PHOTO TR.(S) C.B.A.		(NLA)
C1501		ECKF1H102KB	C.CAPACITOR 50V 1000P	1	
Q1501		PN150NV	PHOTO TR	1	
			MISCELLANEOUS	1	
		VMD0645	PHOTO TR HOLDER	1	
			PHOTO TR.(T) C.B.A.		THIS PART IS INCLUDED IN SLIDE SW UNIT (VXA3498).
C1502		ECKF1H102KB	C.CAPACITOR 50V 1000P	1	
P1508		VJS2165	CONNECTOR 6P	1	
Q1502		PN150NV	PHOTO TR	1	
R1503		ERDS2TJ222	C.RESISTOR 1/4W 2.2K	1	
			MISCELLANEOUS		
		VMD0645	PHOTO TR HOLDER	1	

GRUNDIG SERVICE MANUAL

VIDEO

(D) Btx *32700 #

Laufwerk G 2

(3-Motoren-Laufwerk)

Drive Mechanism G 2

(3-motor drive mechanism)

(D)

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(GB)

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Meßgeräte / Meßmittel	**Test equipment / aids**	z.B. / e.g. **GRUNDIG**
Zweikanaloszilloskop	Dual channel oscilloscope	MO 20, MO 53
Regeltrenntrafo	Variable isolating transformer	RT 5 A
		Sach-Nr. / Part no
Kopfscheibenabzieher (VFK 0341)	Head wheel extractor (VFK 0341)	75987 - 262.96
Referenzplatte (VFK 0387)	Tension post adjustment plate (VFK 0387)	75987 - 262.86
Einstellplatte (VFK 0191)	Post adjustment plate (VFK 0191)	75987 - 262.75
Höhenmeßuhr (VFK 0190)	Dial hight gauge (VFK 0190)	75987 - 262.76
Höhenlehre (VFK 0344)	Hight gauge (VFK 0344)	75987 - 262.87
Bandzugmesser (VFK 0132)	Tape tension meter (VFK 0132)	75987 - 262.74
Kontaktor (0,1N...1N)	Tension gauge (0.1N...1N)	72001 - 401.00
Kontaktor (0,5N...5N)	Tension gauge (0.5N...5N)	72001 - 403.00
Einstellschraubendreher	Post adjustment screw driver	75987 - 262.80
Sechskant-Stiftschlüssel 2mm	Hexagonal wrench 2mm	72004 - 082.00
Testcassette	Test cassette	9.27540 - 1011
Testcassette (HiFi)	Test cassette (HiFi)	9.27540 - 1016

Die Meßmittel können Sie über die Serviceorganisation beziehen. Wir weisen jedoch darauf hin, daß diese z.T. bereits am Markt eingeführt sind.

You can order the test equipments from the Service organization. We refer to you that these test equipments are already obtainable on the market.

1. Absenken des Cassettenschachtes von Hand (ohne Cassette)

- Netzstecker ziehen.
- Riemenscheibe (137) ca. 3 Umdrehungen im Uhrzeigersinn drehen.
- Sicherungshebel Ⓟ ausrasten (Fig. 1).
- Riemenscheibe (137) um eine Umdrehung weiterdrehen.
- Hebel Ⓠ nach unten drücken und Sicherungshebel Ⓟ erneut ausrasten.
- Cassettenschacht durch Weiterdrehen der Riemenscheibe (137) vollständig absenken

1. Lowering the Cassette Compartment by Hand (without cassette)

- Disconnect the machine from mains.
- Rotate the drive belt pulley (137) approx. 3 revolutions in the clockwise direction.
- Release the locking lever Ⓟ (Fig. 1).
- Rotate the drive belt pulley (137) by one more revolution.
- Push the lever Ⓠ down and release the locking lever Ⓟ once again.
- Lower the cassette compartment fully by rotating the drive belt pulley (137) further in a clockwise direction.

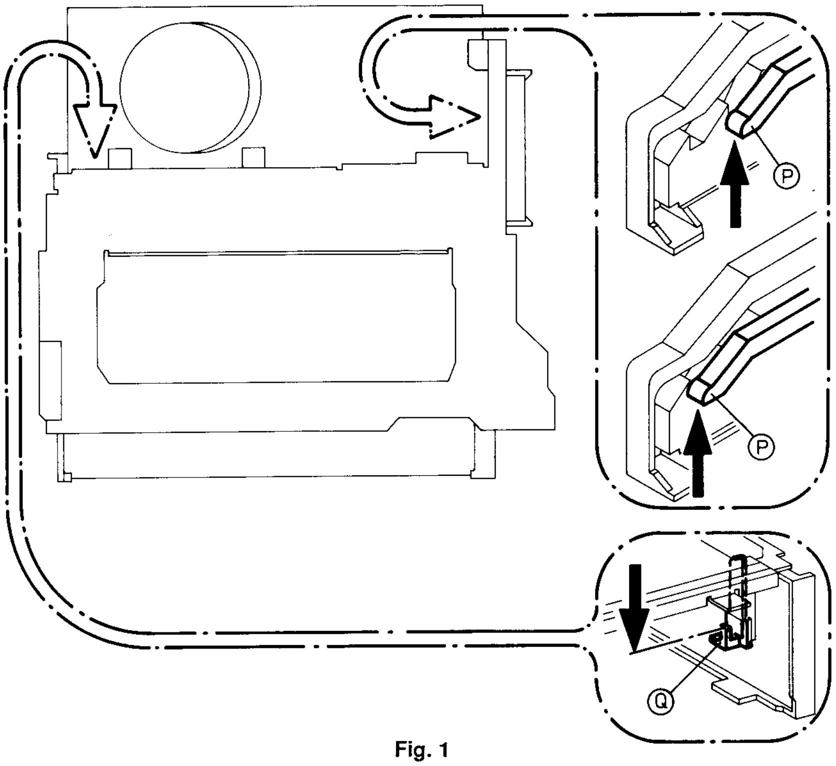


Fig. 1

2. Cassettenauswurf von Hand

a) Netzstecker ziehen
b) Umstellhebel (122) durch Drücken in Pfeilrichtung (Fig. 2) ausrasten.
c) Capstanrotor langsam gegen den Uhrzeigersinn drehen, bis die Kupplungsscheibe (116) einrastet.
d) Schritte b) und c) wiederholen bis die Cassette ausgeworfen wird.

2. Ejecting the Cassette by Hand

a) Disconnect the machine from the mains.
b) Disengage the change-over lever (122) by pressing it in the direction of the arrow (Fig. 2).
c) Rotate the capstan rotor slowly anti-clockwise until the clutch disk (116) locks.
d) Repeat steps b) and c) until the cassette is ejected.

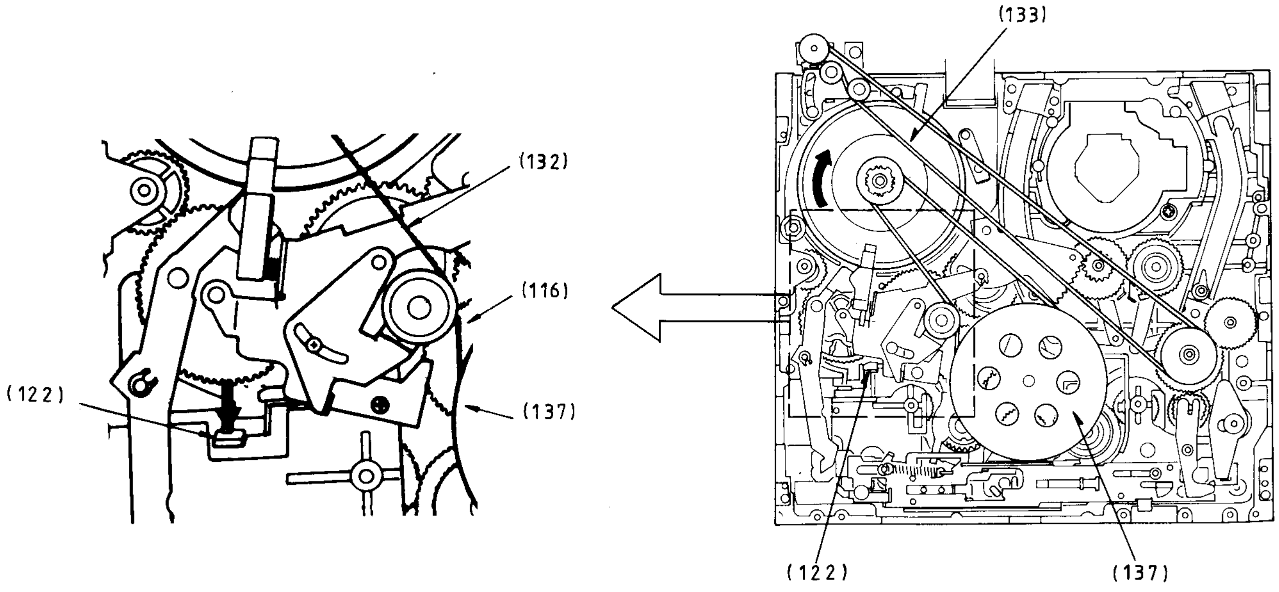


Fig. 2

3. Ausbau des Cassettenschachts

- 2 Schrauben "A" herausdrehen (Fig. 3).
- Cassettenschacht durch Drehen des Capstanrotors (133) im Uhrzeigersinn soweit bewegen, bis die 2 Schrauben "B" entfernt werden können.
- Steckverbindung P1508 abziehen und Cassettenschacht herausnehmen.

4. Einbau des Cassettenschachtes

- Umstellhebel (122), Fig. 2, oder Kern der Spule (66), Fig. 4, in Pfeilrichtung drücken, um die Verriegelung zu öffnen.
- Capstanrotor entgegen dem Uhrzeigersinn drehen bis die Mechanik die Stellung "Auswerfen" erreicht hat (Endanschlag).
- Lage des Markierungslochs ⓐ oder der Markierungsnase ⓓ des Zwischenrades (65) merken (Fig. 5) und Capstanrotor in entgegengesetzter Richtung solange drehen, bis das Zwischenrad (65) eine Umdrehung entgegen dem Uhrzeigersinn gemacht hat.
- Cassettenschacht soweit verschieben, bis der 2. Zahn der Zahnstange (224) über dem rechtwinkligen Loch "C" liegt (Fig. 6).
- Gegebenenfalls 2 Schrauben "D" herausdrehen und Abdeckplatte (201) entfernen, sodaß die Zahnstange (224) und das Zwischenrad (65) beim Einbau zu sehen sind.
- Cassettenschacht so in das Laufwerk einsetzen, daß der 2. Zahn der Zahnstange (224) in der 5. Zahnlücke des Zwischenrades (65) eingreift (Fig. 7). Gegebenenfalls Cassettenschacht geringfügig verschieben.
- Abdeckplatte (201) montieren und die 6 Schrauben in der Reihenfolge "D", "A", "B" eindrehen (Fig. 3, Fig. 6)
- Steckverbindung P 1508 kontaktieren

Hinweis:
Falls die Schachtfunktionen nicht richtig ausgeführt werden, Einbau wiederholen.

3. Removing the Cassette Compartment

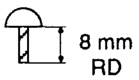
- Remove the 2 screws "A" (Fig. 3).
- Rotate the capstan rotor (133) to move the cassette compartment so that it is possible to remove the 2 screws "B".
- Pull out the plug-type connector P1508 and remove the cassette compartment.

4. Refitting the Cassette Compartment

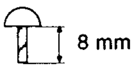
- Press the change-over lever (122), Fig. 2, or the core of the solenoid (66), Fig. 4, in the direction of the arrow to disengage the lever.
- Rotate the capstan rotor in the anti-clockwise direction until the mechanics reaches the "Eject" position (end stop).
- Note the position of the marking hole ⓐ or the marking lug ⓓ on the intermediate gear (65), Fig. 5, and rotate the capstan rotor in the opposite direction until the intermediate gear (65) makes one complete revolution in anti-clockwise direction.
- Move the cassette compartment so that the 2nd tooth of the toothed rack (224) is positioned over the right ancled hole "C" (Fig. 6).
- If necessary, remove the 2 screws "D" and remove the top plate (201) so that the toothed rack (224) and the intermediate gear (65) can be seen during assembly.
- Insert the cassette compartment into the mechanics so that the 2nd tooth of the toothed rack (224) engages with the 5th tooth space of the intermediate gear (65) (Fig. 7). If necessary move the cassette by a small amount.
- Fit the top plate (201) and tighten the 6 screws in the sequence "D", "A", "B" (Fig.3, Fig.6).
- Reconnect the plug connector P1508.

Note:
If the functions of the cassette compartment are not carried out correctly, repeat the assembly procedure.

A / B



D



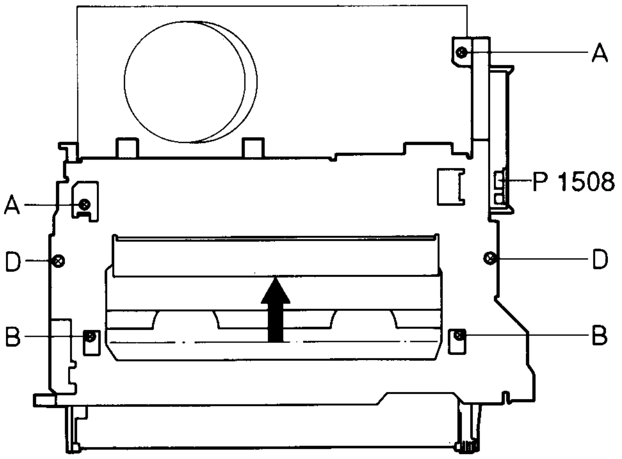


Fig. 3

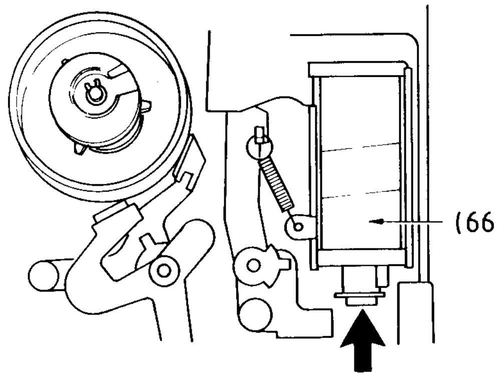


Fig. 4

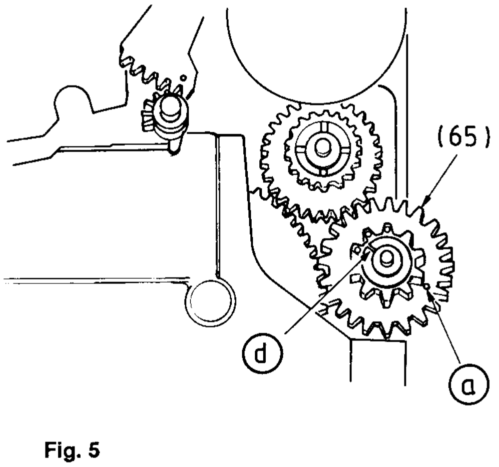


Fig. 5

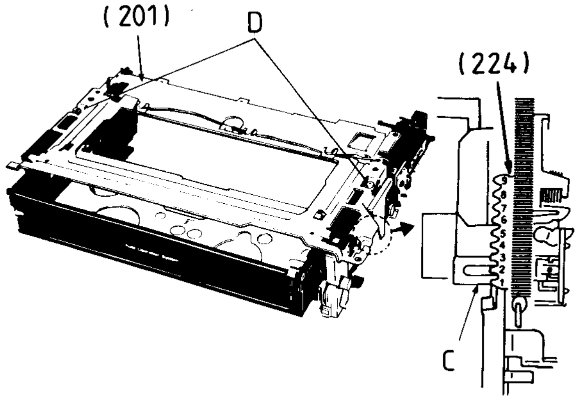


Fig. 6

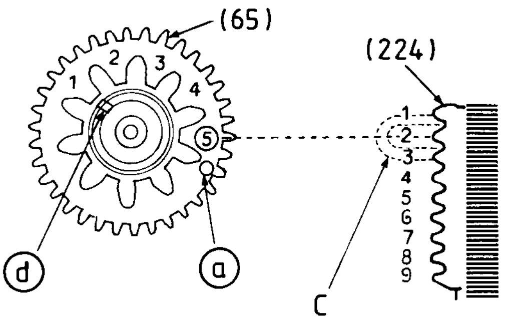


Fig. 7

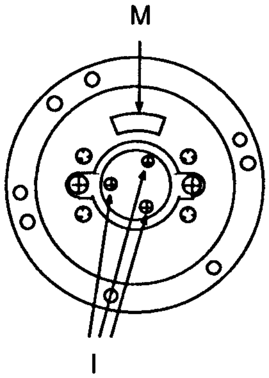


Fig. 8

5. Arbeiten am Bandtrommelbaustein
5.1 Austausch der Kopfscheibe (7)

Servicemittel: Kopfscheibenabzieher

Achtung:
- Die Kopfscheibe sitzt sehr fest auf der Antriebsachse. Arbeiten Sie deshalb mit äußerster Sorgfalt und berühren Sie die Videoköpfe nicht!
- Wenn sich nach dem Einbau die weißen Flächen "M" (Fig. 12) nicht decken, erfolgt die Wiedergabe vorher durchgeführter Aufnahmen in Schwarz / Weiß!
- Die 3 Schrauben "I" nicht lösen (Fig. 8)!

Ausbau:
- Schrauben "F", "H" herausdrehen und Erdungsfeder (5) entfernen (Fig. 9 / Fig. 10).
- Kopfscheibenanschlüsse "K" entlöten, Außenring der Kopfscheibe (7) leicht anwärmen (z.B. Fön) und Kopfscheibe (7) vorsichtig abziehen (Fig. 10).
  Gegebenenfalls Kopfscheiben-Abziehvorrichtung verwenden (Fig. 11). Hierzu die Abziehvorrichtung in den Gewindelöchern "L" der Kopfscheibe befestigen und den Handgriff im Uhrzeigersinn drehen bis die Kopfscheibe von der Achse abgezogen ist.

Einbau:
- Kopfscheibe (7) so auf die Antriebsachse stecken, daß sich die weißen Flächen "M" decken (Fig. 12).
- Schrauben "H" eindrehen und Erdungsfeder (5) montieren.
- Kopfscheibenanschlüsse "K" anlöten.

5. Working on the Tape Drum Module
5.1 Replacing the Head Wheel (7)

Service Aid: Head Wheel Extractor

Attention:
- The Head Wheel is fitted very tightly onto the drive shaft. Therefore, when carrying out service work be very careful and especially ensure that the video heads are not touched!
- If, after reassembly, the white areas "M" (Fig. 12) do not coincide, previous recordings on the tape will be reproduced on playback in black and white!
- Do not loosen the 3 screws "I" (Fig. 8)

Removing:
- Remove the screws "F" and "H" and then the earthing spring (5) (Fig. 9 / Fig. 10).
- Unsolder the head wheel connections "K". Warm up the outer ring of the head wheel (e.g. Hairdryer) and pull the head wheel (7) off carefully (Fig. 10).
- If necessary use the head wheel extractor (Fig. 11). For this locate the extractor into the holes "L" drilled in the head wheel and rotate the handle in the clockwise direction until the head wheel is pulled off the shaft.

Refitting:
- Fit the head wheel (7) onto the shaft so that the white areas "M" coincide (Fig. 12).
- Refit the screws "H" and the earthing spring (5) with screw "F".
- Resolder the head wheel connections "K".

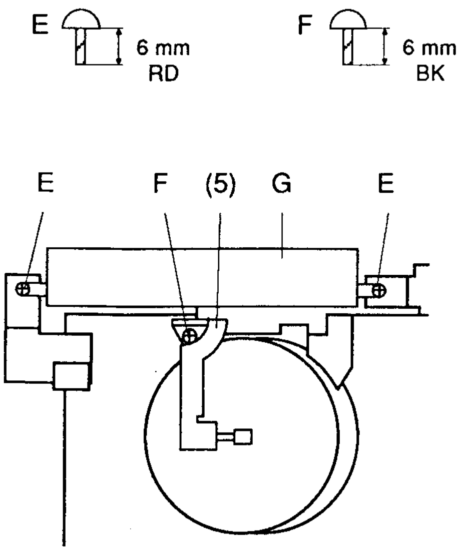


Fig. 9

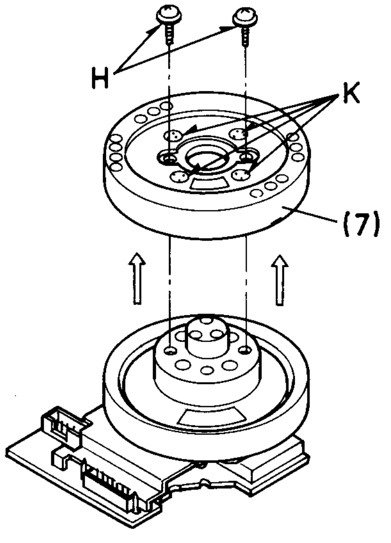


Fig. 10

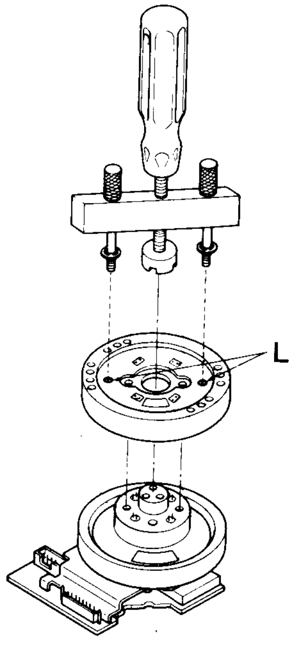


Fig. 11

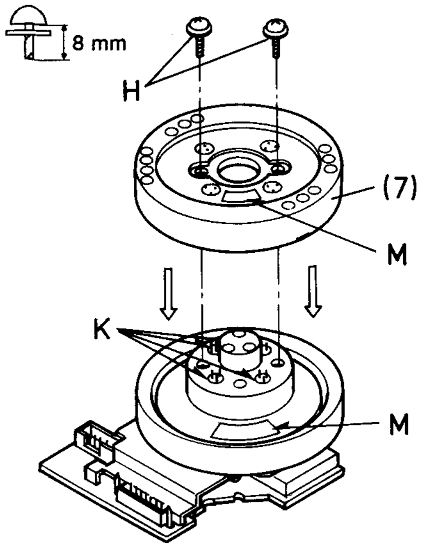


Fig. 12

5.2 Reinigen der Kopfscheibe

- Kopfscheibe festhalten und Videoköpfe mit einem spiritusgetränkten Reinigungsstäbchen in Bandlaufrichtung vorsichtig abreiben (Fig.13).

5.3 Austausch des Bandtrommelbausteins

Ausbau des Bandtrommelbausteins (6)

- 3 Schrauben "E" und "F" herausdrehen (Fig. 9).
- Kopfverstärker "G" und Erdungsfeder (5) entfernen.
- Steckverbindungen lösen.
- 3 Schrauben "N" entfernen (Fig. 14) und Bandtrommelbaustein (6) vorsichtig aus dem Laufwerk ziehen.

Einbau des Bandtrommelbausteins (6)

- Bandtrommelbaustein (6) ins Laufwerk stecken und 3 Schrauben "N" eindrehen (Fig. 14).
- Erdungsfeder (5) mit Schraube "F" befestigen (Fig. 9).
- Kopfverstärker "G" und Steckverbindungen kontaktieren.
- 2 Schrauben "E" eindrehen
- Bandlauf- / Kompatibilitätseinstellung prüfen (Kap. 6.8)

5.4 Austausch der Kopfscheiben-Motorsteuerplatte

- Bandtrommelbaustein gemäß Kap. 5.3 ausbauen.
- Lötstelle "O" öffnen und Abschirmung entfernen (Fig. 15).
- 18 Lötstellen "P", einschließlich der 10 in der Abbildung Fig. 15 nicht sichtbaren, öffnen.
- 2 Schrauben "Q" herausdrehen und Kopfscheiben-Motorsteuerplatte entfernen.

Der Einbau erfolgt in umgekehrter Reihenfolge.

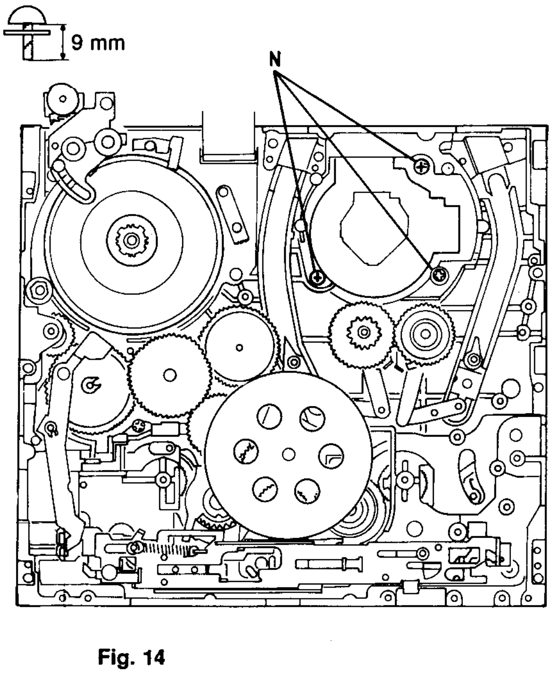


Fig. 14

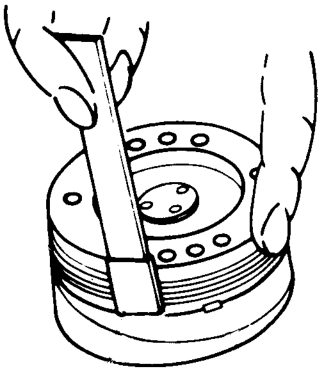


Fig. 13

5.2 Cleaning the Head Wheel

- Hold the head wheel stationary and clean the video heads with a cleaning stick soaked with spirit by wiping carefully in the direction of the tape transport (Fig.13).

5.3 Replacing the Tape Drum Module

Removing the Tape Drum Module (6)

- Remove the 3 screws "E" and "F" (Fig. 9).
- Remove the head amplifier "G" and the earthing spring (5).
- Loosen the plug connectors.
- Remove the 3 screws "N" (Fig. 14) and pull the Tape Drum Module (6) carefully out of the mechanics.

Refitting the Tape Drum Module (6)

- Place the Tape Drum Module (6) into the mechanics and tighten the 3 screws "N" (Fig. 14).
- Refit the earthing spring (5) with the screw "F" (Fig. 9).
- Reconnect the Head Amplifier "G" and the plug connectors.
- Refit the 2 screws "E".
- Check the Tape Transport/Compatibility Adjustment (para 6.8)

5.4 Replacing the Head Wheel-Motor Drive Panel

- Remove the Tape Drum Module as described in para 5.3.
- Unsolder the solder pads "O" and remove the screen (Fig. 15).
- Open the 18 solder connections "P" including the 10 not visible in the illustration (Fig. 15).
- Undo the 2 screws "Q" and remove the Head Wheel-Motor Drive Panel.

For reassembly, reverse the sequence.

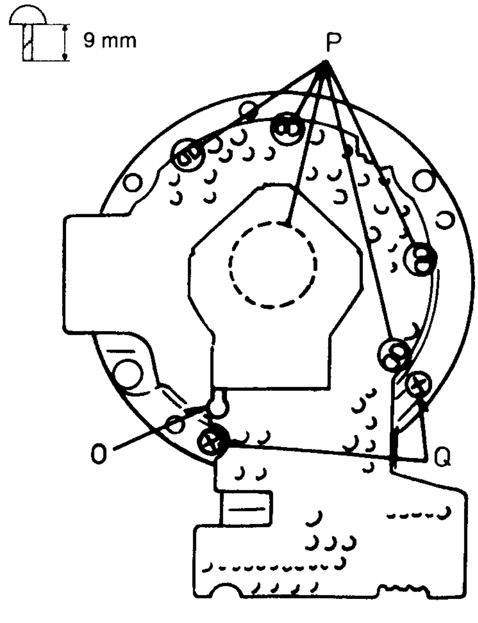
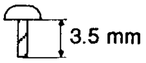


Fig. 15

5.5 Austausch des Kopfscheiben-Motorsteuer-IC's

- Kopfscheiben-Motorsteuerplatte gemäß Kapitel 5.4 ausbauen.
- Schraube "R" (Fig. 16) und Kühlblech entfernen.
- IC auslöten.

Der Einbau erfolgt in umgekehrter Reihenfolge.



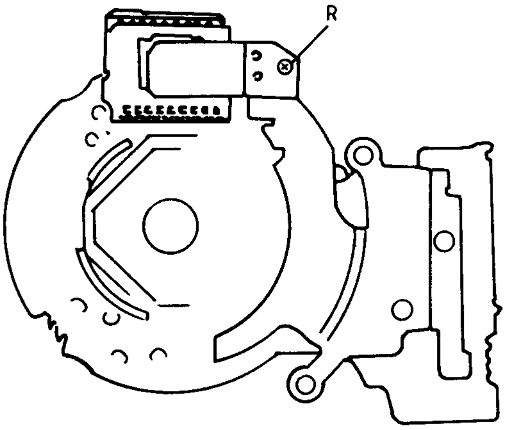


Fig. 16

5.5 Replacing the Head Wheel-Motor Drive IC

- Remove the Head Wheel-Motor Drive Panel as described in para 5.4.
- Release the screw "R" (Fig. 16) and the heat sink.
- Unsolder the IC.

For reassembly, reverse the sequence.

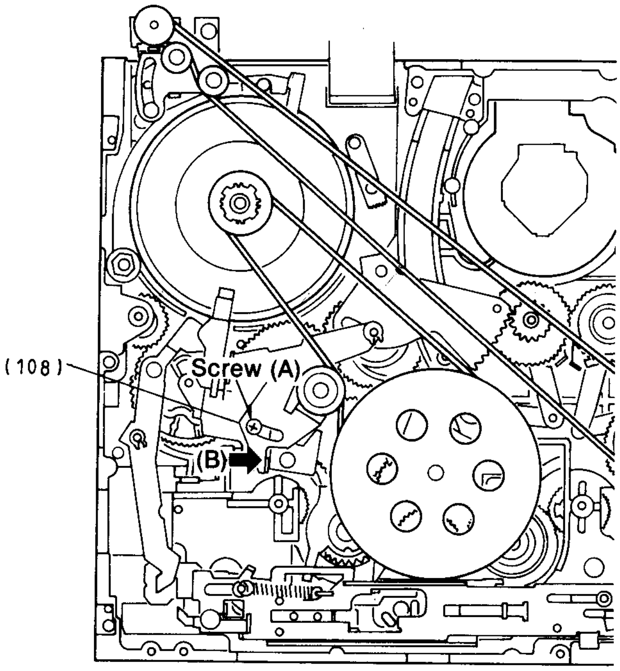


Fig. 17

6. Mechanische Einstellungen

6.1 Einstellen der Riemenspannung des Capstanmotors

Meßmittel: Kontaktor (0,1N - 1N)

- Schraube (A) lösen (Fig. 17).
- Kontaktor am Punkt (B) ansetzen und Spannrollenhebel (108) in Pfeilrichtung (B) drücken.
- Zeigt die Skala des Kontaktors 0,4 N ± 0,05 N (Einstellwert) an, Schraube (A) anziehen.

6.2 Einstellen der Riemenspannung des Umspulmotors

Meßmittel: Kontaktor (0,5N - 5N)

- Schraube (C) lösen (Fig. 18).
- Kontaktor am Punkt (D) ansetzen und Spannrollenhebel (93) in Pfeilrichtung (D) drücken.
- Zeigt die Skala des Kontaktors 2,25 N ± 0,25 N (Einstellwert) an, Schraube (C) anziehen.

6. Mechanical Adjustments

6.1 Adjusting the Belt Tension of the Capstan Motor

Service Aid: Tension gauge (0.1N - 1N)

- Loosen the screw (A), (Fig. 17).
- Fit the Tension Gauge to point (B) and press the tension roller lever (108) in the direction of the arrow (B).
- When the Tension Gauge indicates 0.4 N ± 0.05 N (Specified Value), tighten the screw (A).

6.2Adjusting the Belt Tension of the Capstan Motor

Service Aid: Tension gauge (0,5N - 5N)

- Loosen the screw (C), (Fig. 18)
- Fit the Tension Gauge to point (D) and press the tension roller lever (93) in the direction of the arrow (D).
- When the Tension Gauge indicates 2.25 N ± 0.25 N (Specified Value), tighten the screw (C).

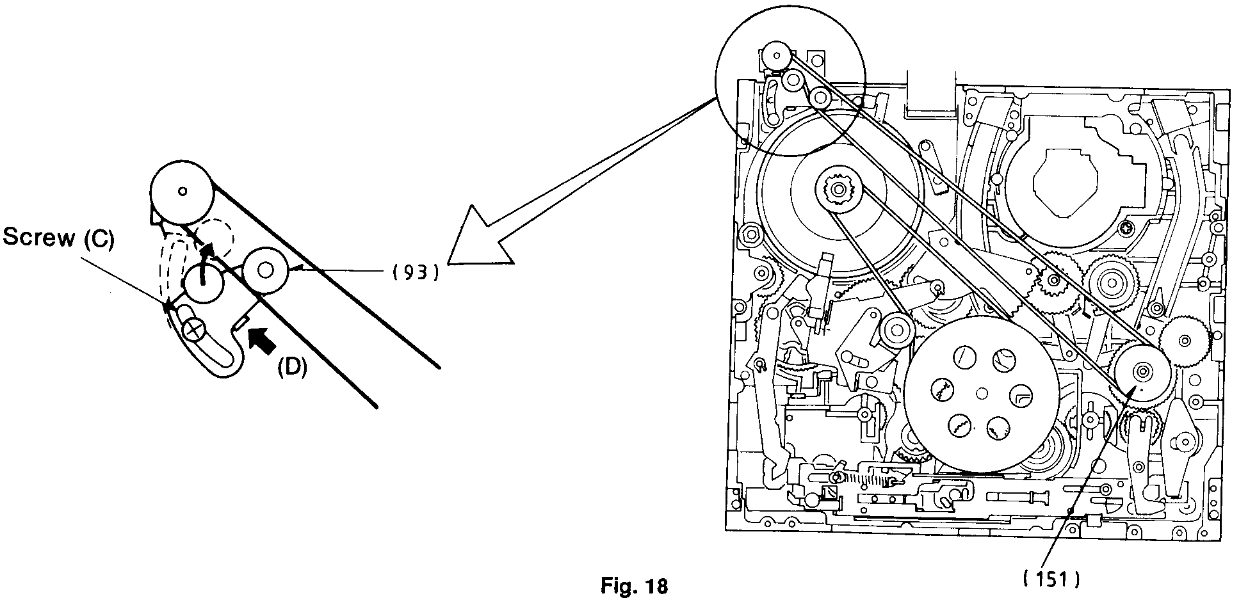


Fig. 18

6.3 Lageeinstellung des Bandzugfühlers

Meßmittel: Referenzplatte, Sechskantstiftschlüssel 2mm

- Gerät vom Netz trennen.
- Cassettenschacht ausbauen (Kap. 3).
- Umstellhebel (122) drücken und Capstanrotor (133) im Uhrzeigersinn drehen bis der Einfädelvorgang abgeschlossen ist (Fig. 19). Dabei den Umschalthebel (122) wiederholt ausrasten.
- Referenzplatte auflegen.
- Exzenter "S" der Bremsbandbefestigung mit dem Sechskantstiftschlüssel so einstellen, daß der Bandzugbolzen "T" gerade die Referenzplatte berührt (Fig. 20).
- Referenzplatte entfernen und Capstanrotor (133) solange entgegen dem Uhrzeigersinn drehen, bis ausgefädelt ist. Dabei den Umschalthebel (122) wiederholt ausrasten.
- Cassettenschacht einbauen (Kap. 4).

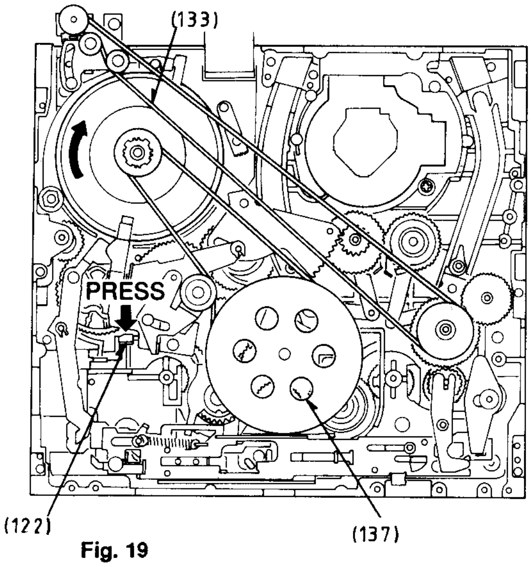


Fig. 19

6.4 Messen und Einstellen des Bandzuges

Meßmittel: Bandzugmesser, A/W-Cassette E 120

- A / W-Cassette E 120 vom Bandanfang an abspielen
- Nach ca. 20 Sekunden den Bandzugmesser "BZ" nach Fig.21 in den Bandlauf einfügen.
- Weicht der abgelesene Bandzug vom Sollwert 0,2 N ... 0,25 N ab, den Bandzug durch Umhängen der Feder (12) auf den Sollwert einstellen (Fig. 22).

Hinweis: Während der Messung müssen die Fühler des Bandzugmessers guten Kontakt zum Band haben. Messung mehrmals wiederholen.

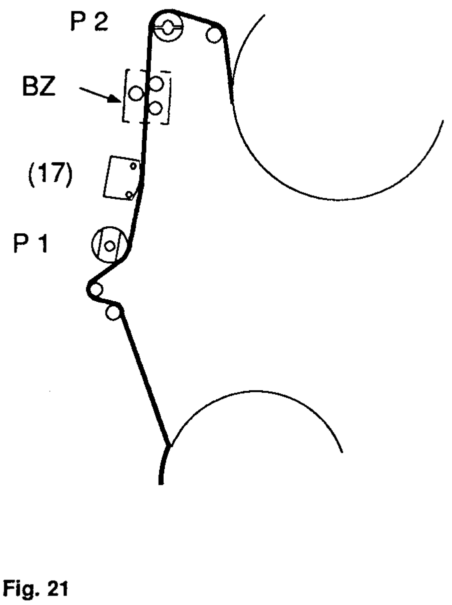


Fig. 21

6.3 Adjustment of the Tape Tension Sensor position

Service Aid: Tension post adjustment plate, Hexagon Wrench (Allen Key) 2mm

- Disconnect the recorder from the mains.
- Remove the cassette compartment (para 3)
- Press the change-over lever (122) and rotate the capstan rotor (133) in the clockwise direction until the loading-in process is completed (Fig. 19). In doing so, disengage the change-over lever (122) repeatedly.
- Fit the Tension Post Adjustment Plate.
- Adjust the cam "S" on the brake band securing point with the hexagon wrench so that the tape tension bolt "T" just touches the Tension Post Adjustment Plate (Fig. 20).
- Remove the Tension Post Adjustment Plate and rotate the capstan rotor (133) in the anti-clockwise direction until the mechanics unloads. In doing so, disengage the change-over lever (122) repeatedly.
- Refit the cassette compartment (para 4).

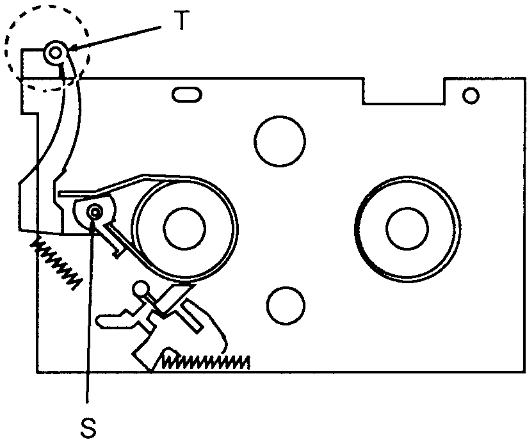


Fig. 20

6.4 Measuring and Adjusting the Tape Tension

Service Aids:
Tape tension meter, Record / Playback cassette E120

- Playback the R/P Cassette E120 from the beginning.
- After about 20 seconds fit the Tape Tension Meter "BZ" as shown in Fig. 21.
- If the measured value is different from the specified value of 0.2N ... 0.25N, relocate the spring (12) to obtain the specified value (Fig. 22).

Note: When making measurements, ensure that the probes of the meter are in good contact with the tape. Repeat this measurement several times.

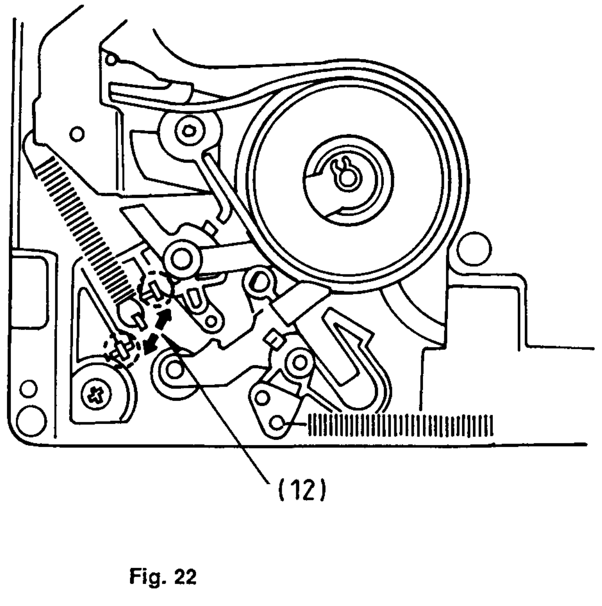


Fig. 22

6.5 Einstellen des Capstanrotors (133)

Meßmittel: Höhenmeßuhr, Höhenlehre
- Einstellschraube (41), Fig. 23, soweit herausdrehen, bis sich Capstanstator (135) und -rotor (133) gerade berühren.
- Höhenlehre "U" auf den Capstanrotor (133) legen und Höhenmeßuhr nach Abbildung Fig. 24 auf dem geschliffenen Laufwerkrand positionieren. Skala der Höhenmeßuhr auf Null stellen.
- Mit der Einstellschraube (41) Abstand zwischen Capstanrotor (133) und -stator (135) auf 0,5 mm...0,55 mm einstellen (Fig. 25).

6.5 Adjusting the Capstan Rotor (133)

Service Aids: Dial Height Gauge, Height Gauge
- Loosen the adjustment screw (41), Fig. 23, until the capstan stator (135) just touches the rotor (133).
- Place the Height Gauge "U" onto the capstan rotor (133) and the Dial Height Gauge as shown in Fig. 24 onto the smooth area on the edge of the mechanics. Set the pointer of the Dial Height Gauge to zero.
- With the adjustment screw (41) adjust the distance between the capstan rotor (133) and the stator (135) to 0.5mm...0.55mm (Fig. 25).

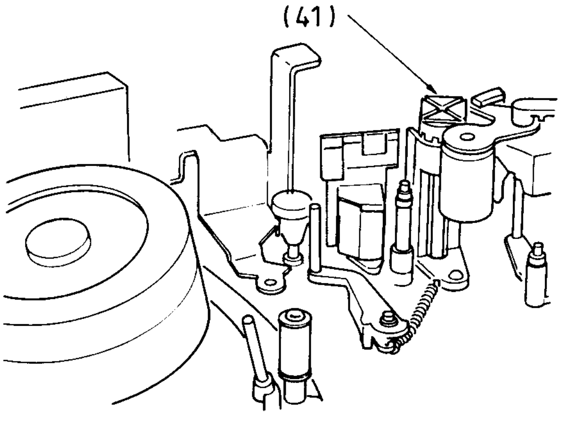


Fig. 23

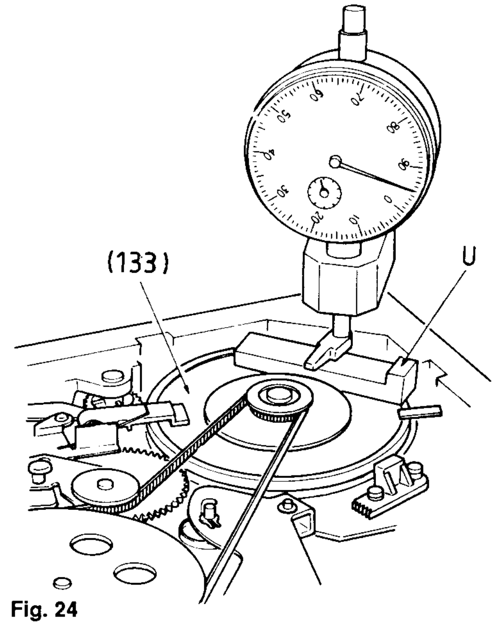


Fig. 24

6.6 Höheneinstellung der Wickelteller

Meßmittel: Einstellplatte, Höhenmeßuhr
- Cassettenschacht ausbauen (Kap. 3).
- Einstellplatte auf die Wickelteller legen.
- Höhenmeßuhr so auf die Einstellplatte legen, daß deren Meßfuß im ausgearbeiteten Teil der Einstellplatte aufsitzt (Fig. 26).
- Skala der Höhenmeßuhr auf Null stellen
- Höhe der Wickelteller (14), (71) messen (Fig. 27).
- Wenn der gemessene Wert mehr als ± 0,2mm vom eingestellten Nullwert der Skala abweicht, Wickeltellerhöhe durch Austauschen der Unterlegscheiben einstellen. Folgende Unterlegscheiben sind lieferbar:

6.6 Height Adjustment of the Spool Carriers

Service Aid: Post Adjustment Plate, Dial Height Gauge
- Remove the cassette compartment (para 3)
- Place the Post Adjustment Plate onto the spool carrier.
- Place the Dial Height Gauge onto the Post Adjustment Plate so that the measuring probe of the Dial Height Gauge locates into the cut-out provided on the Post Adjustment Plate (Fig. 26).
- Set the pointer of the Dial Hight Gauge to zero.
- Measure the height of the spool carrier (14), (71)- (Fig. 27).
- If the measured value differs from the zero Value of the pointer by more than ± 0.2mm, readjust the spool carrier height by replacing the shim washer. The following shim washers are available:

Unterlegscheibe / Washer / Rondella	Sachnummer / Part Number / No. ordine
0,2 mm	75 986 - 208.21
0,3 mm	75 986 - 208.22
0,5 mm	75 986 - 208.23

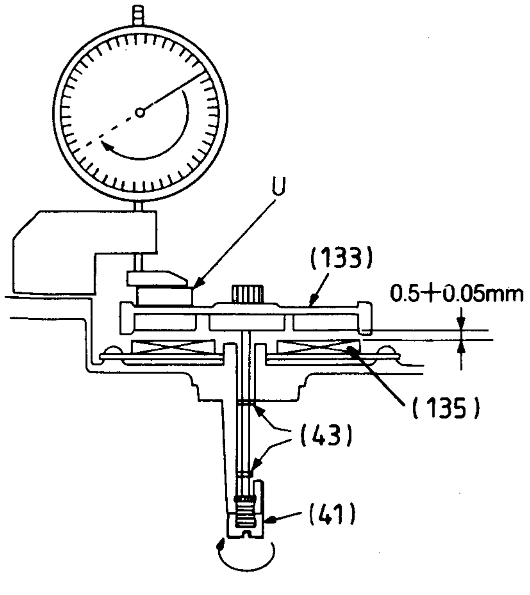


Fig. 25

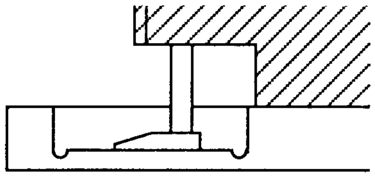


Fig. 26

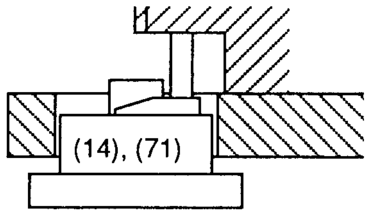


Fig. 27

6.7 Statische Höheneinstellung der Bandbolzen P2, P3 und P5

Meßmittel: Einstellplatte, Höhenmeßuhr, Einstellschraubendreher

Vorbereitung:
- Cassettenschacht ausbauen (Kap. 3)
- Einstellplatte nach Abbildungen Fig. 28 / 31 auf die Wickelteller legen.

6.7.1 Bandführungsbolzen P2, P3

- Höhe der Bandführungsbolzen P2 / P3 so einstellen, daß der untere Führungsbund unter der Oberkante der Einstellplatte liegt (Fig. 29).
- Höhenmeßuhr nach Abbildung Fig. 29 plazieren und Anzeige auf Null stellen. Anschließend Bandführungsbolzen soweit hochdrehen, bis der untere Führungsbund gerade den Meßfühler der Höhenmeßuhr berührt (Fig. 30).
- Schraube "V" nicht lösen! Sie dient zur Neigungseinstellung der Führungsbolzen P2, P3.
- Statische Höheneinstellung kontrollieren (Kap. 6.7.3).

6.7 Static Height Adjustment of Tape Bolts P2, P3 and P5

Service Aids: Post Adjustment Plate, Dial Height Gauge, Post Adjustment screw driver

Preparations:
- Remove the cassette compartment (para 3)
- Place the Post Adjustment Plate onto the spool carrier as shown in Fig. 28 / 31.

6.7.1 Tape Guide Bolts P2, P3

- Adjust the height of the Tape Guide Bolts P2, P3 so that the lower guide collar lies below the upper edge of the Post Adjustment Plate (Fig. 29).
- Place the Dial Height Gauge as shown in Fig. 29 and set the pointer to zero. Afterwards adjust to raise the height of the Tape Guide Bolts so that the lower guide collar just touches the measuring probe of the Dial Height Gauge (Fig. 30).
- Do not loosen screw "V"! This screw is only for adjusting the tilt of the Guide Bolts P2, P3.
- Check the Static Height Adjustment (para 6.7.3).

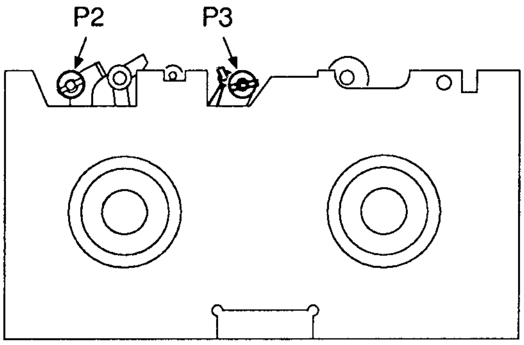


Fig. 28

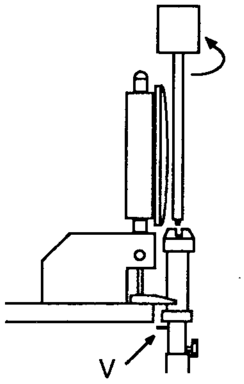


Fig. 29

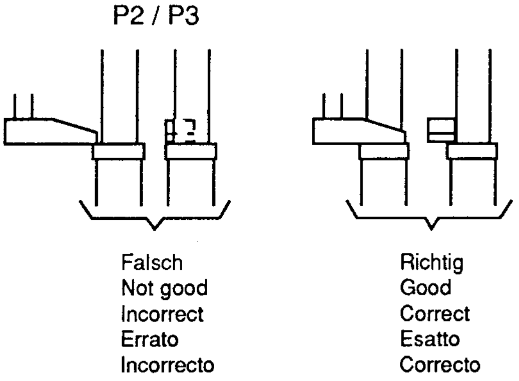


Fig. 30

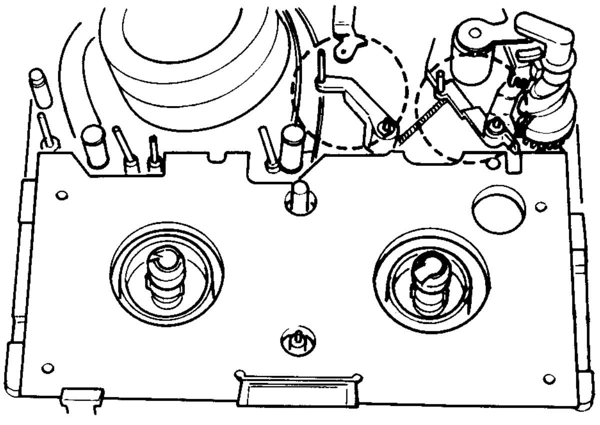


Fig. 31

6.7.2 Bandauszugsbolzen P5

Hinweis: Einstellmutter (52) des Bandauszugsbolzens P5 nur zu Justagezwecken verdrehen!
- Capstanrotor soweit entgegen dem Uhrzeigersinn drehen, bis die in Abbildung Fig. 31 gezeigte Laufwerkstellung erreicht ist.
- Höhenmeßuhr nach Abbildung Fig. 32 auf die Einstellplatte stellen und Skala auf "Null" eichen.
- Höhenmeßuhr nach Abbildung Fig. 33 am unteren Führungsbund des Bandauszugsbolzens P5 auflegen und mit der Einstellmutter (52) die Anzeige der Höhenmeßuhr auf 0,03 mm ±0,01 mm einstellen.
- Statische Höheneinstellung kontrollieren (Kap. 6.7.3).

6.7.2 Tape Pull-Out Bolt P5

Note: The Adjustment Nut (52) on the Tape Pull-out Bolt P5 must be turned for adjustment purposes only!
- Rotate the capstan rotor in the anti-clockwise direction until the mechanics reaches the position shown in Fig. 31.
- Place the Dial Height Gauge onto the Post Adjustment Plate as shown in Fig. 32 and adjust the pointer to zero.
- Place the Dial Height Gauge as shown in Fig. 33 onto the lower guide collar of the Tape Pull-out Bolt P5 and adjust the nut (52) until the pointer of the Dial Height Gauge indicates 0.03 mm ± 0.01 mm.
- Check the Static Height Adjustment (para 6.7.3).

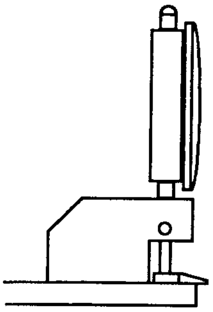


Fig. 32

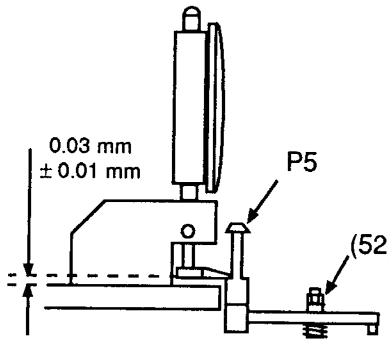


Fig. 33

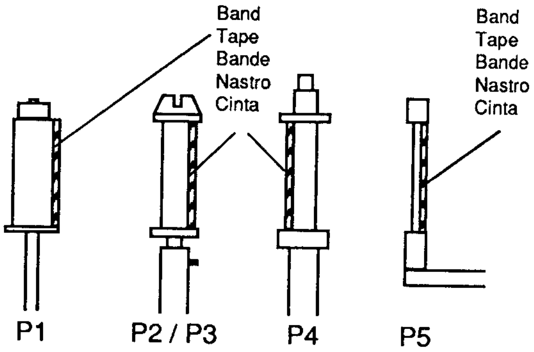


Fig. 34

6.7.3 Kontrolle der statischen Höheneinstellung

- Cassettenschacht einbauen (Kap. 4).
- A / W - Cassette wiedergeben.
- Prüfen, ob das Band an den Bolzen P1, P2, P3, P4 und P5 ohne zu bördeln läuft (Fig. 34...Fig. 36).
- Gegebenenfalls Höhenjustage Kap. 6.7.1 und 6.7.2 wiederholen.
- Dynamische Einstellung der Bandführungsbolzen P2, P3 prüfen (Kap. 6.8.1)

6.7.3 Checking the Static Height Adjustment

- Refit the cassette compartment (para 4).
- Playback a record / playback cassette.
- Check that the tape runs past the Bolts P1, P2, P3, P4 and P5 without crinkling (Fig. 34 ... Fig. 36).
- If necessary, repeat the height adjustment as described in paras 6.7.1 and 6.7.2.
- Check the Dynamic Adjustment of the Tape Guide Bolts P2, P3 (para 6.8.1).

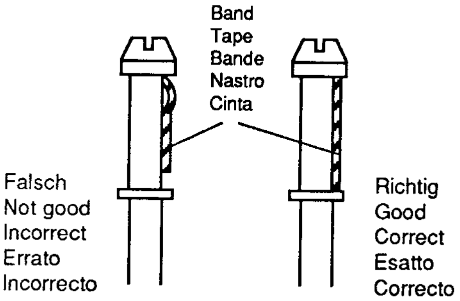


Fig. 35

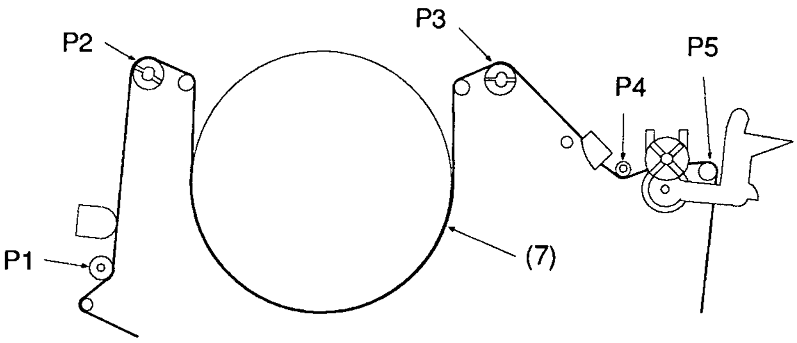


Fig. 36

6.8 Bandlaufeinstellung / Kompatibilitätseinstellung

Diese Einstellungen sind grundsätzlich nach Tausch des Audio-/Synchronkopfes (A/C), der Andruckrolle oder nach Justage der Bolzen P2, P3, P5 durchzuführen bzw. zu überprüfen. Dabei muß folgende Reihenfolge eingehalten werden:

6.8.1 Dyn. Einstellung der Bolzen P2, P3
6.8.2 Einstellen der Neigung des A/C -Kopfes
6.8.3 Höheneinstellung des A/C-Kopfes
6.8.4 Azimut-Einstellung des A/C-Kopfes
6.8.5 Einstellen der horizontalen Lage des A/C-Kopfes

6.8 Tape Transport Adjustment / Compatibility Adjustment

These adjustments must be carried out or checked in every case after every replacement of the A/C head, the Pressure Roller or after adjusting the Bolts P2, P3, P5. The following sequence must be adhered to:

6.8.1 Dynamic adjustment of the Bolts P2, P3
6.8.2 Tilt adjustment of the A/C Head
6.8.3 Height adjustment of the A/C Head
6.8.4 Azimuth adjustment of the A/C Head
6.8.5 Horizontal position adjustment of the A/C Head

6.8.1 Dynamische Einstellung der Bolzen P2, P3

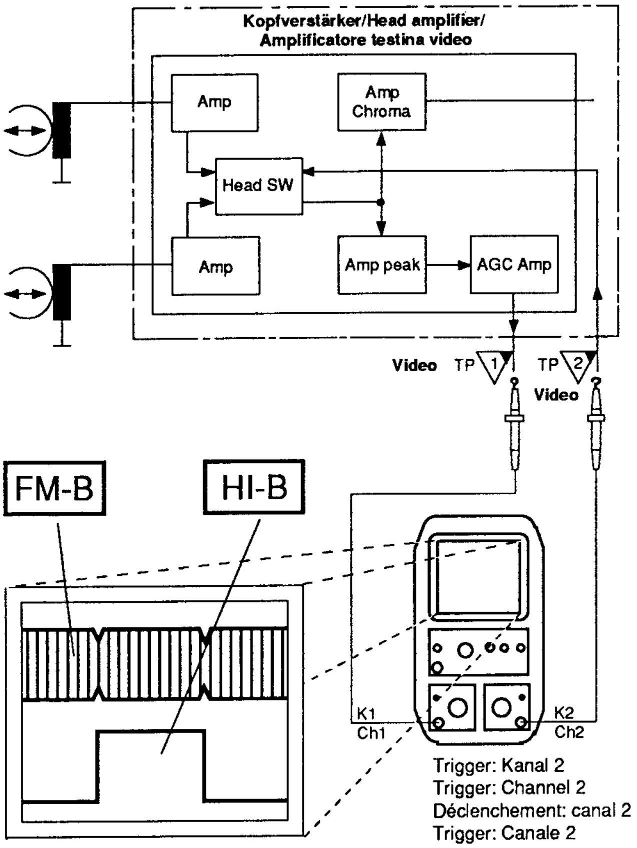
Meßmittel: Testcassette, Oszilloskop

- Oszilloskop nach Abbildung Fig. 37 anschließen:
  Tastkopf 1 an TP 1
  Tastkopf 2 an TP 2
- Testcassette wiedergeben (Tracking in Mittelstellung)
- Falls sich Hüllkurven wie die Beispiele "A" und "B" in Abbildung Fig. 38 zeigen, Hüllkurve mit dem Einlauf-Bandführungsbolzen P2 nach Abbildung Fig. 38 - "E" einstellen.
- Falls sich Hüllkurven wie die Beispiele "C" oder "D" in Abbildung Fig. 38 zeigen, Hüllkurve mit Auslauf-Bandführungsbolzen P3 nach Abbildung Fig. 38 - "E" einstellen.
- Trackingeinstellung nach "+" und "-" variieren. Dabei sollen die Hüllkurvenränder parallel zusammenlaufen (Fig. 39).
- Tracking auf maximale Hüllkurvenamplitude einstellen. Diese muß folgende Grenzwerte einhalten (Fig. 40):
  $V1 / V \geq 0{,}7$; $V2 / V \geq 0{,}8$
- Gegebenenfalls Einstellung wiederholen.

6.8.1 Dynamic adjustment of the Bolts P2, P3

Service Aids: Test Cassette, Oscilloscope

- Connect the oscilloscope as shown in Fig. 37:
  Test Probe 1 to TP 1
  Test Probe 2 to TP 2
- Playback the test cassette (tracking to mid setting).
- If the FM envelopes are displayed as shown in examples "A" and "B" in Fig. 38 adjust with the Run-in Tape Guide Bolt P2 so that the FM envelopes are as shown in Fig. 38 - "E".
- If the FM envelopes are displayed as shown in example "C" or "D" in Fig. 38, adjust with the Run-out Tape Guide Bolt P3 so that the FM envelopes are as shown in Fig. 38 - "E".
- Vary the Tracking in the "+" and "-" directions. When doing so the FM envelope should show parallel converging lines (Fig. 39).
- Adjust the tracking to obtain maximum FM envelope amplitude. This must produce the following basic values (Fig. 40):
  $V1 / V \geq 0.7$; $V2 / V \geq 0.8$
- If not obtained repeat these adjustments.


Kopfverstärker/Head amplifier/
Amplificatore testina video
Amp
Amp Chroma
Head SW
Amp
Amp peak
AGC Amp
Video
TP 1
TP 2
Video
FM-B
HI-B
K1
Ch1
K2
Ch2

Trigger: Kanal 2
Trigger: Channel 2
Déclenchement: canal 2
Trigger: Canale 2
Sincronizar con HI

Fig. 37

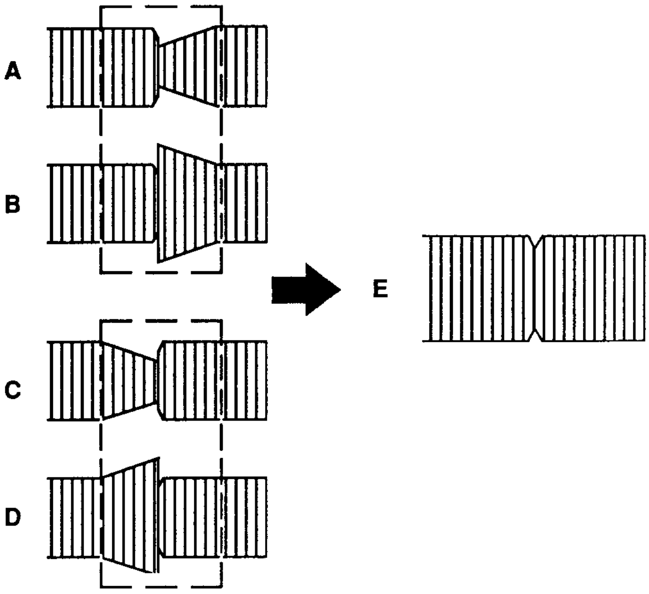
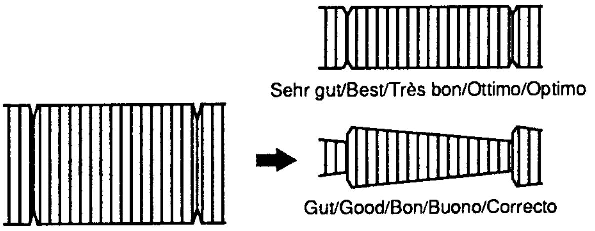


Fig. 38

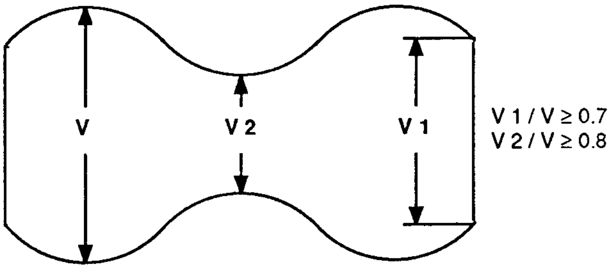


Sehr gut/Best/Très bon/Ottimo/Optimo

Gut/Good/Bon/Buono/Correcto

Gut/Good/Bon/Buono/Correcto

Fig. 39



V 1 / V ≥ 0.7
V 2 / V ≥ 0.8

Fig. 40

6.8.2 Einstellen der Neigung des A/C-Kopfes

- Unbespielte Cassette vom Bandanfang an wiedergeben.
- Neigung des A/C-Kopfes (34) mit Schraube "A1" (Fig. 41 / 42) so einstellen, daß das Band bei manueller Bandzugerhöhung leicht sichtbar, jedoch ohne zu bördeln am unteren Führungsbund des Bandlaufbolzens P4 aufliegt.
- Höheneinstellung des A/C-Kopfes prüfen (Kap. 6.8.3)

6.8.2 Tilt Adjustment of the A/C Head

- Playback an un-used cassette from the beginning.
- Adjust the tilt of the A/C head (34) with the screw "A1" (Fig. 41 / 42) so that the tape, whilst manually increasing the tape tension, just touches the lower collar of the Tape Guide Bolt P4 without crinkling.
- Check the height adjustment of the A/C Head (para 6.8.3)

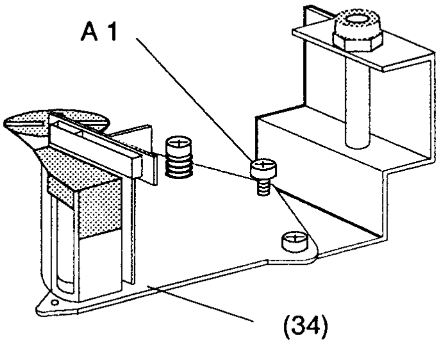
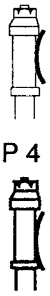
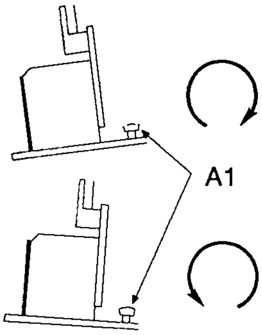


Fig. 41





Drehrichtung für Korrektur
Turn in this direction for correction
Sens de rotation pour la correction
Direzione rotazione p. correzione
Sentido de giro para corrección

Fig. 42

6.8.3 Höheneinstellung des A/C-Kopfes

Meßmittel: Testcassette, Oszilloskop
- Testcassette wiedergeben
- mit Mutter (35) den unteren Rand des Synchronkopfes mit dem unteren Rand des Bandes zur Deckung bringen (Fig. 43).

Kontrolle:
- Tastkopf des Oszilloskops an EURO-AV-Buchse, Kontakt 1
- 6,3 kHz- Signal der Testcassette wiedergeben
- mit Mutter (35) maximale Ausgangsspannung einstellen (Fig. 44).

6.8.3 Height adjustment of the A/C Head

Service Aids: Test Cassette, Oscilloscope
- Playback the Test Cassette.
- Turn the nut (35) so that the bottom edge of the Sync Head coincides with the lower edge of the tape (Fig. 43).

CHECK:
- Connect a test probe from the Oscilloscope to contact 1 of the EURO-AV Socket.
- Playback the 6.3 kHz signal from the Test Cassette.
- Adjust the nut (35) to obtain maximum output voltage (Fig. 44).

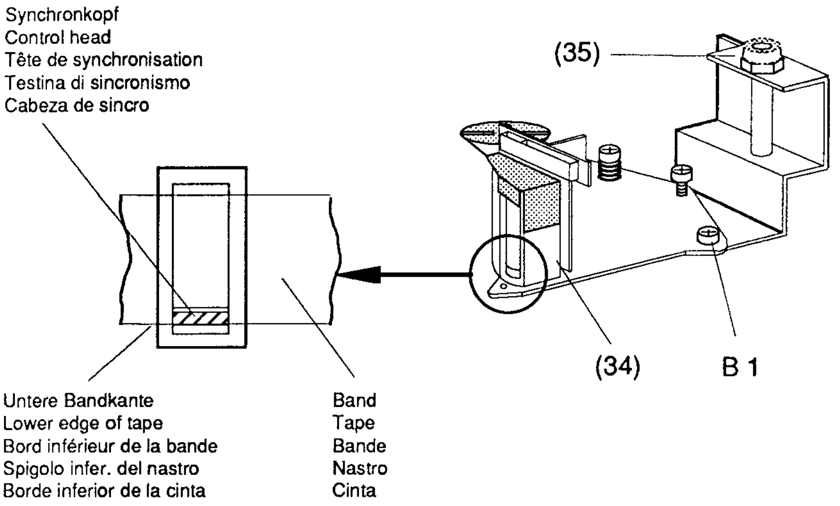

Synchronkopf
Control head
Tête de synchronisation
Testina di sincronismo
Cabeza de sincro
(35)
(34)
B 1
Untere Bandkante
Lower edge of tape
Bord inférieur de la bande
Spigolo infer. del nastro
Borde inferior de la cinta
Band
Tape
Bande
Nastro
Cinta

Fig. 43

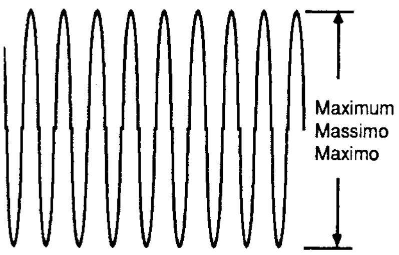

Maximum
Massimo
Maximo

Fig. 44

6.8.4 Azimuteintellung des A/C-Kopfes

Meßmittel: Testcassette, Oszilloskop
- Tastkopf des Oszilloskops an EURO-AV-Buchse, Kontakt 1.
- 6,3 kHz-Audiosignal der Testcassette wiedergeben.
- mit Schraube "B1" maximalen Ausgangspegel einstellen (Fig. 43, Fig. 44).

6.8.5 Einstellen der horizontalen Lage des A/C-Kopfes

Meßmittel: Testcassette, Oszilloskop
- Oszilloskop nach Abbildung Fig. 37 anschließen
- Testcassette wiedergeben (Tracking in Mittelstellung)
- Hüllkurve (FM vom Band) mit Mutter (36) auf maximale Amplitude einstellen (Fig. 45, Fig. 46).

6.8.4 Azimuth adjustment of the A/C Head

Service Aids: Test Cassette, Oscilloscope
- Connect a test probe from the Oscilloscope to contact 1 of the EURO-AV Socket.
- Playback the 6.3 kHz signal from the Test Cassette.
- Adjust the screw "B1" to obtain maximum output voltage (Fig. 43, Fig. 44).

6.8.5 Horizontal position adjustment of the A/C Head

Service Aids: Test Cassette, Oscilloscope
- Connect the Oscilloscope as shown in Fig. 37.
- Playback the Test Cassette (tracking to mid setting).
- Set the envelopes (FM Tape) to maximum amplitude (Fig. 45, Fig. 46) with the nut (36).

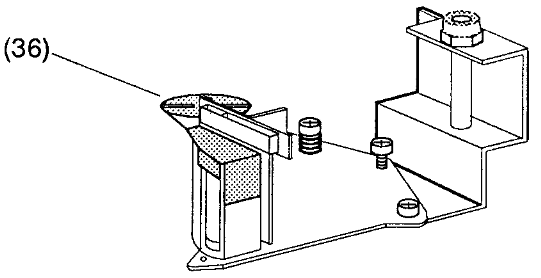


Fig. 45

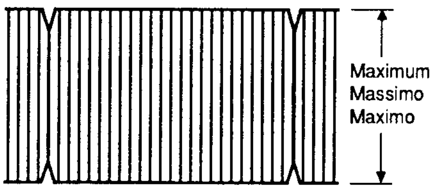

Maximum
Massimo
Maximo

Fig. 46

7. Hinweise zu Reparaturen in der Antriebsmechanik

Dieses Laufwerk ist durch den Funktionswahlschalter (55) sehr eng mit der Ablaufsteuerung verknüpft. Die Beziehung zwischen Funktionswahlschalter und den Kurvenrädern bestimmt alle weiteren mechanischen Funktionsabläufe. Falls Hebel, Zahnräder, Rollen usw. nicht exakt eingebaut sind, können deshalb Laufwerksblockaden, bzw. Schäden im Laufwerk oder in der Elektronik auftreten.

Die Abbildungen Fig. 47 / 48 zeigen das Laufwerk in der Bezugsposition "STOP" und die dabei auftretende Anordnung der Markierungslöcher. Die Bezugsposition "STOP" ist identisch mit der Laufwerkstellung "Umspulbetrieb". Diese entspricht der 2. Raststellung des Kupplungsrades (116), wenn diese Laufwerkstellung durch Drehen des Capstanrotors von Hand angefahren wird.

Der Austausch von Bauteilen in der Antriebsmechanik darf nur in dieser Laufwerkstellung erfolgen.

7. Notes on Repairing the Drive Mechanism

This Drive Mechanism is very closely coupled with the Sequence Control by means of the Mode Select Switch (56). The relationship between the Mode Select Switch and the Cam Gears determines all the sequences of the other mechanical operations. If, therefore, the levers, gears and rollers etc, are not correctly fitted, the drive mechanism may fail to work and damage may occur within the mechanics or electronic circuits.

The illustrations Fig. 47 / 48 show the drive mechanism in the reference position "STOP" and the resulting alignment of the marking holes. The reference position "STOP" is identical to the mechanical position during "WINDING MODE". This corresponds to the second locking position of the clutch disc (116), when this mechanical position is reached by rotating the capstan rotor by hand.

Replacement of components in the drive mechanism must only be carried out with the mechanics set to this position.

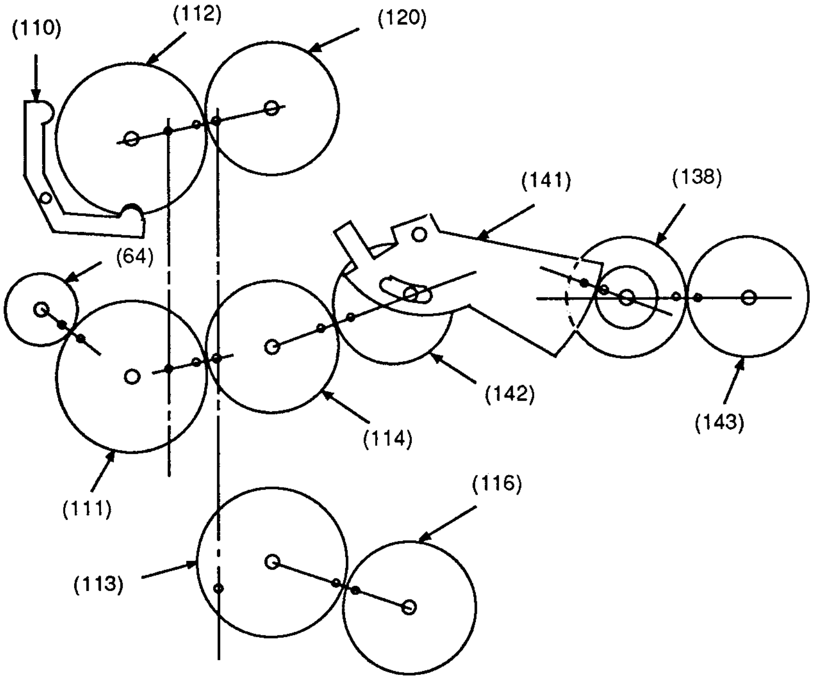


Fig. 47

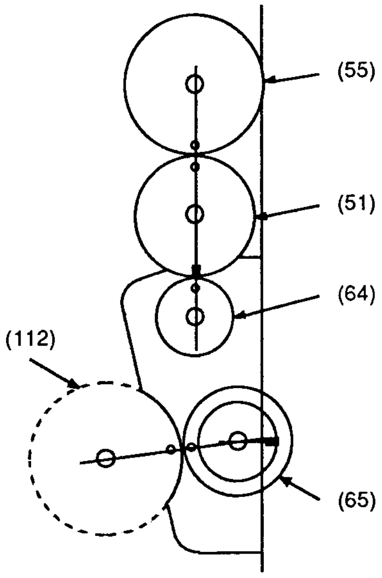


Fig. 48

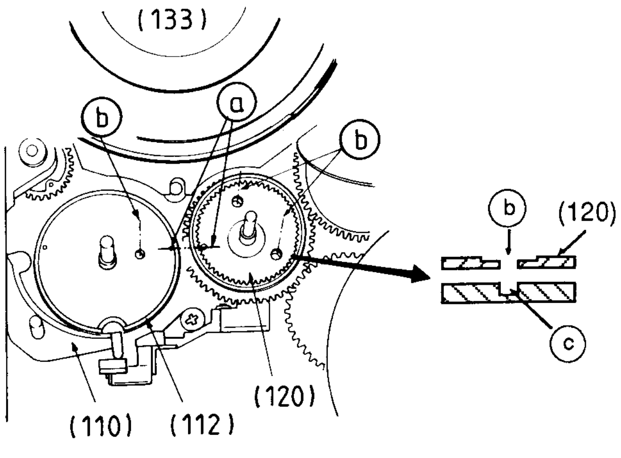


Fig. 49

7.1 Kurvenrad (112), Ringrad (120), Sperrhebel (110)

- Ringrad (120) so einbauen, daß die Markierungslöcher ⓑ im Ringrad mit den Markierungslöchern ⓒ im Laufwerkchassis übereinstimmen (Fig. 49).
- Kurvenrad (112) so einbauen, daß das Markierungsloch ⓑ mit dem Markierungsloch ⓒ im Laufwerk übereinstimmt und das Markierungsloch ⓐ dem Markierungsloch ⓐ des Ringrades (120) gegenübersteht.
- Sperrhebel (110) einsetzen.

7.2 Kurvenrad (111), Untersetzungszahnrad (64)

- Untersetzungszahnrad (64) von der Oberseite des Laufwerks einsetzen (Fig. 50).
- Kurvenrad (111) so auf das Kurvenrad (112) stecken, daß sich die Markierungslöcher ⓐ des Kurvenrades (111) und des Untersetzungszahnrads (64) gegenüberstehen. Gleichzeitig müssen die Markierungslöcher ⓑ der Kurvenräder (111) und (112) genau übereinander liegen (Fig. 49 / 50).

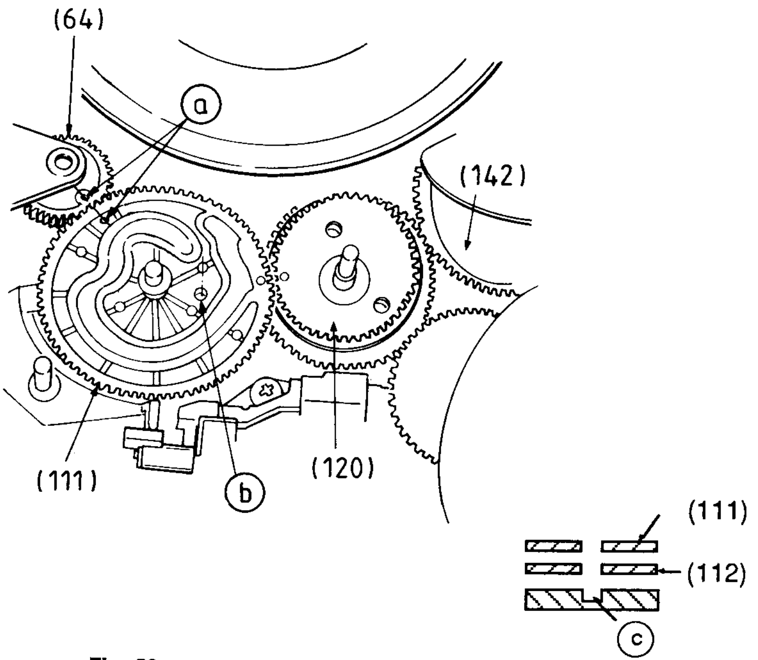


Fig. 50

7.3 Ladekurvenrad (142), Zwischenrad (114)

- Ladekurvenrad (142) so einbauen, daß der Hilfsladehebel (39) in die Aussparung "e" eingreift (Fig. 51).
- Zwischenrad (114) auf das Ringrad (120) stecken (Fig. 52). Die Markierungslöcher des Zwischenrades (114) und des Kurvenrades (111), sowie die Markierungslöcher ⓑ des Zwischenrades (114) und des Ladekurvenrades (142) müssen gegenüberstehen. Gleichzeitig müssen das Markierungsloch ⓑ' des Zwischenrades (114), das Markierungsloch ⓑ des Ringrades (120) und das Markierungsloch ⓒ im Laufwerkchassis übereinanderliegen.

7.4 Steuerrad (113)

- Steuerrad (113) so auf das Zwischenrad (114) stecken, daß das Markierungsloch ⓐ des Steuerrades (113) dem Markierungsloch ⓐ des Kupplungsrades (116) gegenübersteht und die Markierungslöcher ⓑ des Steuerrades (113), ⓑ' des Zwischenrades (114), ⓑ des Ringrades (120) und ⓒ des Laufwerks übereinanderliegen (Fig. 53).
- Sicherungsring (100) montieren.

7.5 Hauptsteuerschieber (103), Steuerhebel (109)

- Hauptsteuerschieber (103) einsetzen und mit den Sicherungsringen (100) befestigen (Fig. 54).
- Steuerhebel (109) so einbauen, daß dessen Steuerbolzen " f " in die Steuerkurve des Kurvenrades (111) und der Abbug in die Aussparung des Hauptsteuerschiebers (103) eingreift (Fig. 55).
- Greifring " X " montieren.

7.1 Sub Cam Gear (112), Ring Gear (120), Locking Lever (110)

- Fit the ring gear (120) so that the marked holes ⓑ in the Ring Gear lines up with the marked holes ⓒ in the mechanical chassis (Fig. 49).
- Fit the Sub Cam Gear (112) so that the marked hole ⓑ lines up with the marked hole ⓒ in the mechanics and that the marked hole ⓐ faces towards the marked hole ⓐ on the Ring Gear (120).
- Fit the Locking Lever (110).

7.2 Cam Gear (111), Reduction Toothed Gear (64)

- Fit the Reduction Toothed Gear (64) from the top of the mechanics (Fig. 50)
- Fit the Cam Gear (111) onto the Sub Cam Gear (112) so that the marked holes ⓐ on the Cam Gear (110) and the Reduction Gear (64) are aligned towards each other. In this position the marked holes ⓑ on the Cam Gears (111) and (112) must lie accuratly over each other (Fig. 49 / 50).

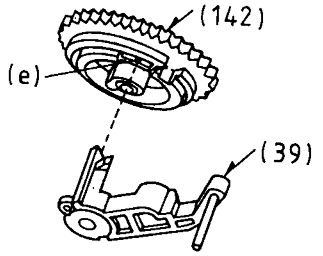


Fig. 51

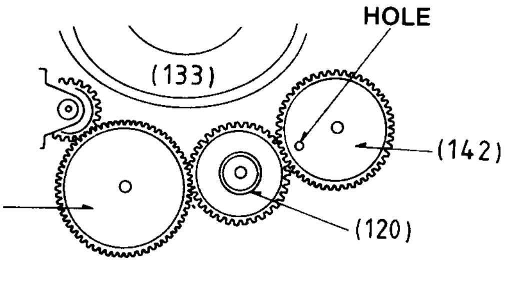


Fig. 51-1

7.3 Loading Cam Gear (142), Intermediate Gear (114)

- Fit the Loading Cam Gear (142) so that the Sub Loading Lever (39) engages with the cut out "e" (Fig. 51).
- Fit the Intermediate gear (114) onto the Ring Gear (120), (Fig. 52). The marked holes ⓐ on the Intermediate Gear (114) and the Cam Gear (111) and the marked the holes ⓑ on the Intermediate Gear (114) and the Loading Cam Gear (142) must be aligned towards each other. Simultaneously the marked hole ⓑ' on the Intermediate Gear (114), the marked hole ⓑ on the Ring Gear (120) and the marked hole ⓒ on the mechanical chassis must lie accurately over each other.

7.4 Drive Gear (113)

- Fit the Drive Gear (113) onto the Intermediate Gear (114) so that the marked hole ⓐ on the Drive Gear (113) is aligned towards the marked hole ⓐ on the Clutch Disk (116), and the marked holes ⓑ on the Drive Gear (113), marked hole ⓑ' on the Intermediate Gear (114), marked hole ⓑ on the Ring Gear (120) and the marked hole ⓒ on the mechanics lie accurately over each other (Fig. 53).
- Fit the Securing Ring (100).

7.5 Main Control Lever (103), Control Lever (109)

- Fit the Main Control Lever (103) and secure with the securing ring (100) (Fig. 54)
- Fit the Control Lever (109) so that the Drive Bolt " f " engages with the cam curve of the Cam Gear (111) and the bent part with the gap in the main control lever (103), Fig. 55.
- Fit the Grip Ring "X".

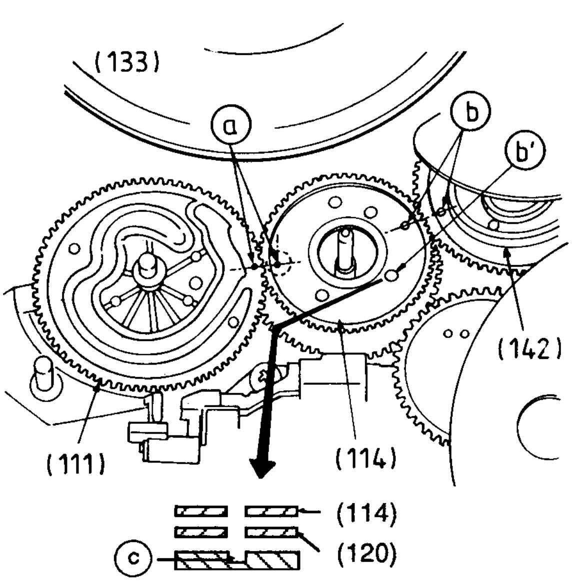


Fig. 52

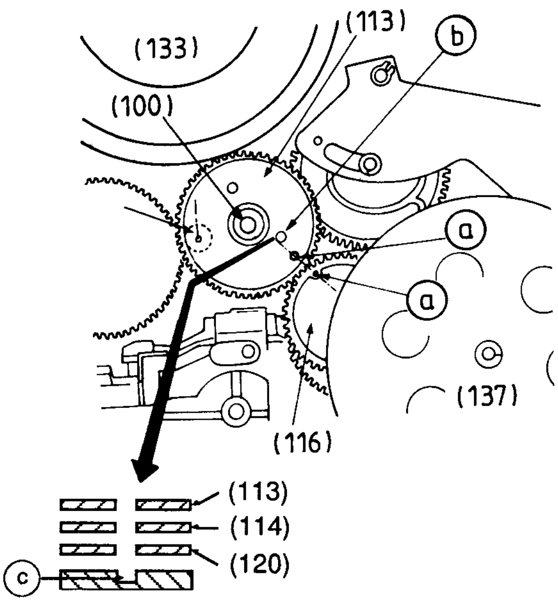


Fig. 53

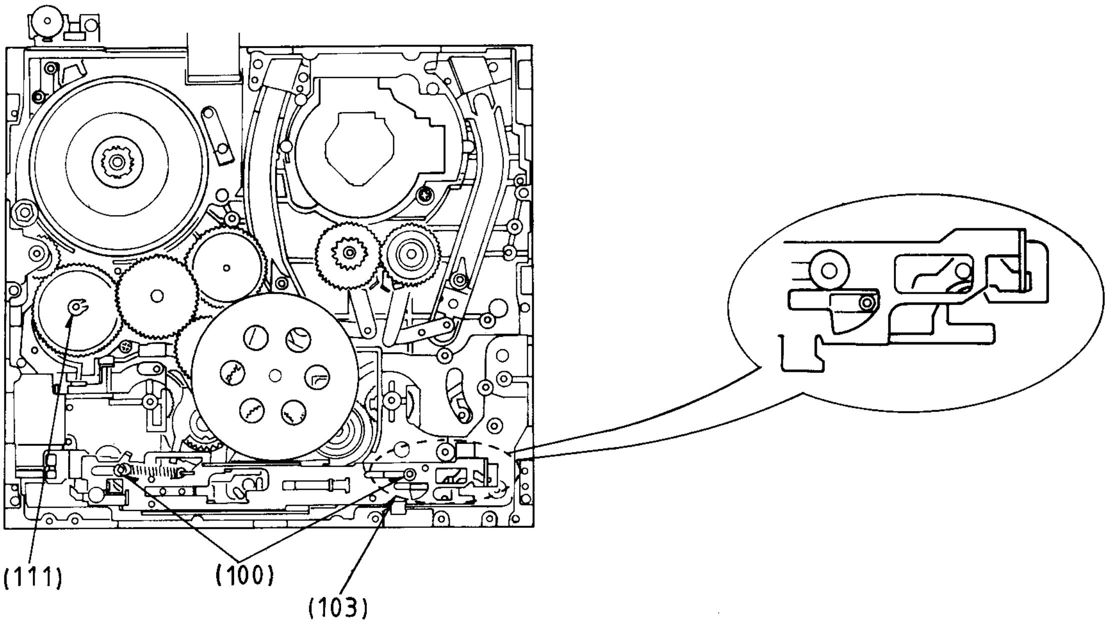


Fig. 54

7.6 Laderäder (138,143), Zahnsegment (141), Bremshebel (105), Spannrollenhebel (108)

- Bandführungsbolzen P2, P3 in Stellung "STOP" bringen.
- Laderäder (138, 143) so einsetzen, daß sich deren Markierungslöcher ⓑ gegenüberstehen (Fig. 56).
- Zahnsegment (141) nach Fig. 56 einbauen. Das Markierungsloch ⓑ des Zahnsegments (141) muß sich gegenüber der Markierungsnase ⓓ des Laderades (138) befinden.
- Bremshebel (105) und Greifring "X" montieren.
- Spannrollenhebel (108) einbauen.
- Spannung des Riemens des Capstanmotors einstellen (Kap. 6.1)
- Schrauben "SC" anziehen.

7.6 Loading Gears (138,143), Toothed Segment (141), Brake Lever (105), Tension Roller Lever (108)

- Set the Tape Guide Bolts P2 and P3 into the "STOP" position.
- Fit the Loading Gears (138, 143) so that their marked holes ⓑ are aligned towards each other (Fig. 56).
- Fit the Toothed Segment (141) as shown in Fig. 56. The marked hole ⓑ on the Toothed Segment (141) must be aligned towards the marked lug ⓓ on the Loading Gear (138).
- Fit the Brake Lever (105) and the Grip Ring "X".
- Fit the Tension Roller Lever (108).
- Adjust the tension of the belt of the capstan motor (para 6.1).
- Tighten the screws "SC".

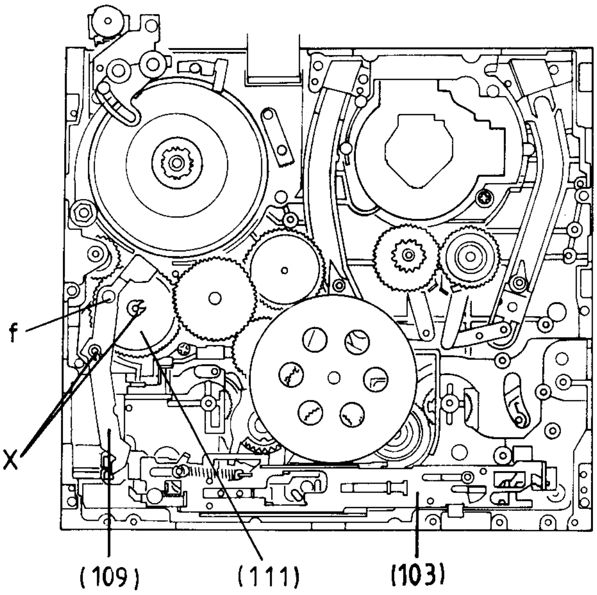

f
X
(109)
(111)
(103)

Fig. 55

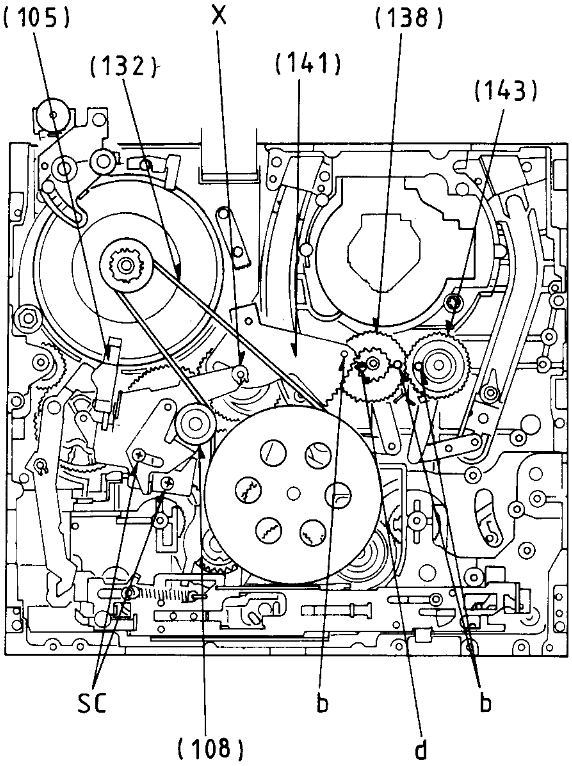

(105)
X
(138)
(132)
(141)
(143)
SC
b
b
(108)
d

Fig. 56

7.7 Umspulhebel (153), Umspulkupplung (151), Zugverminderungshebel (154), Zugverminderungs-Kupplung (152)

- Umspulhebel (153) und Umspulkupplung (151) montieren (Fig. 57).
- Umspulriemen (159) auf die Umspulkupplung (151) legen.
- Zugverminderungshebel (154) und Zugverminderungs-Kupplung (152) einbauen.

7.7 Rev Arm Unit (153), Rev Clutch Unit (151), Tension Release Lever (154), Tension Release Clutch Unit (152)

- Fit the Rev Arm Unit (153) and the Rev Clutch Unit (151), Fig. 57.
- Put the Rev Motor Timing Belt (159) onto the Rev Clutch Unit (151).
- Fit the Tension Release Lever (154) and Tension Release Clutch Unit (152).

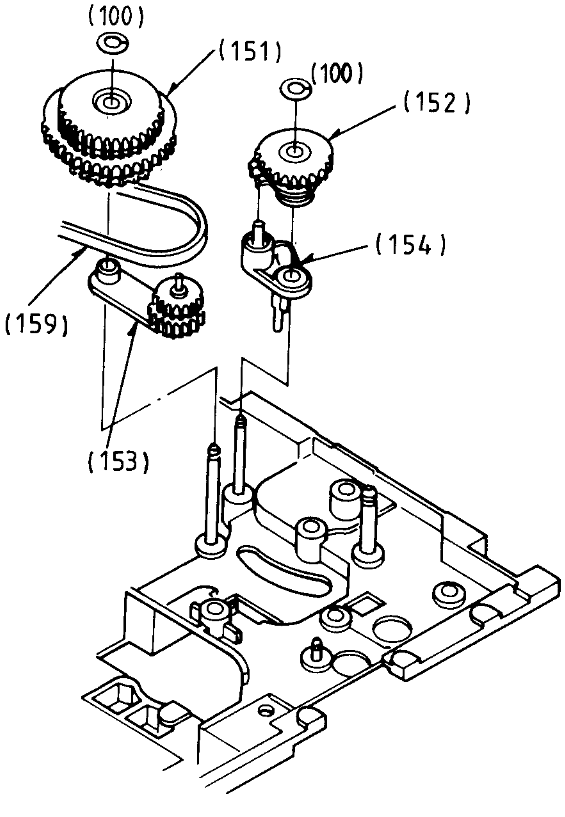

(100)
(151)
(100)
(152)
(154)
(159)
(153)

Fig. 57

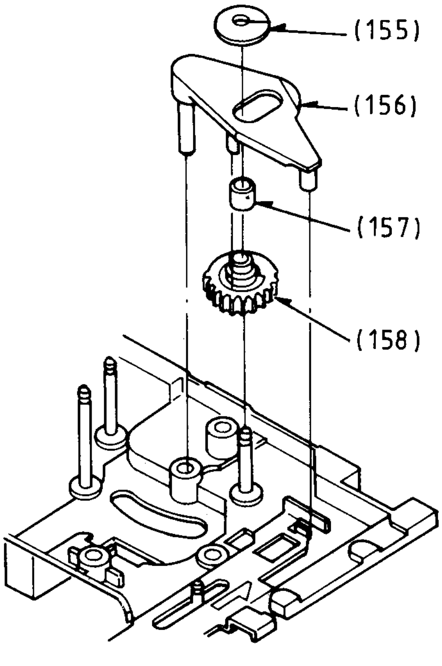

(155)
(156)
(157)
(158)

Fig. 58

7.8 Hilfshebelrad (158), Hilfshebel (156), Umspulkontrollhebel (160)

- Hilfshebelrad (158), Hilfshebel (156), Bremsring (157) und Scheibe (155) gemäß Fig. 58 montieren.
- Umspulkontrollhebel (160) gemäß Fig. 59 einbauen.

7.9 Riemenspannhebel (93)

- Riemenspannhebel (93) gemäß Fig. 60 montieren.
- Riemenspannung, wie in Kapitel 6.2 beschrieben, einstellen.

7.8 Sub Lever Cam (158), Sub Cam Follower (156), Review Control Lever (160)

- Fit the Sub Lever Cam (158), the Sub Cam Follower (156), the Rubber Stopper (157) and the Washer (155) as shown in Fig. 58.
- Fit the Review Control Lever (160) as shown in Fig. 59.

7.9 Tension Pulley Base Unit (93)

- Fit the Tension Pulley Base Unit (93) as shown in Fig. 60.
- Adjust the tension of the Timing Belt as described under point 6.2.

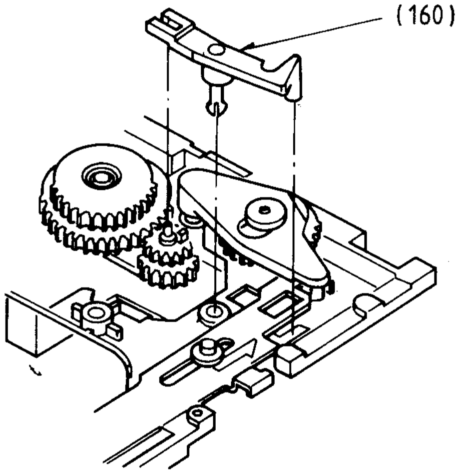


Fig. 59

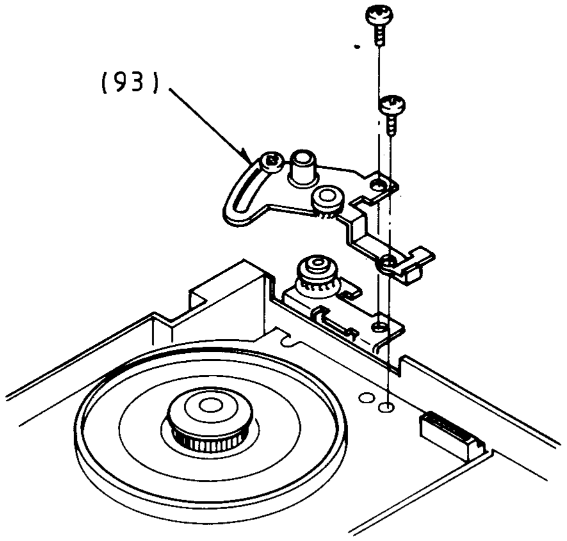


Fig. 60

7.10 Zwischenrad (65)

Hinweis: Bevor Sie das Zwischenrad einbauen, müssen sich alle Zahnräder in den bisher beschriebenen Positionen befinden.

- Zwischenrad (65) gemäß Abbildung Fig. 61 einsetzen. Die Markierungslöcher ⓐ des Zwischenrades (65) und des Kurvenrades (112) müssen sich gegenüberstehen.

7.10 Intermediate Gear (65)

Note: Before fitting the Intermediate Gear make sure that all other gears are in the positions described earlier.

- Fit the Intermediate Gear (65) as shown in Fig. 61. The marked holes ⓐ on the Intermediate Gear (65) and the Cam gear (112) must be aligned towards each other.

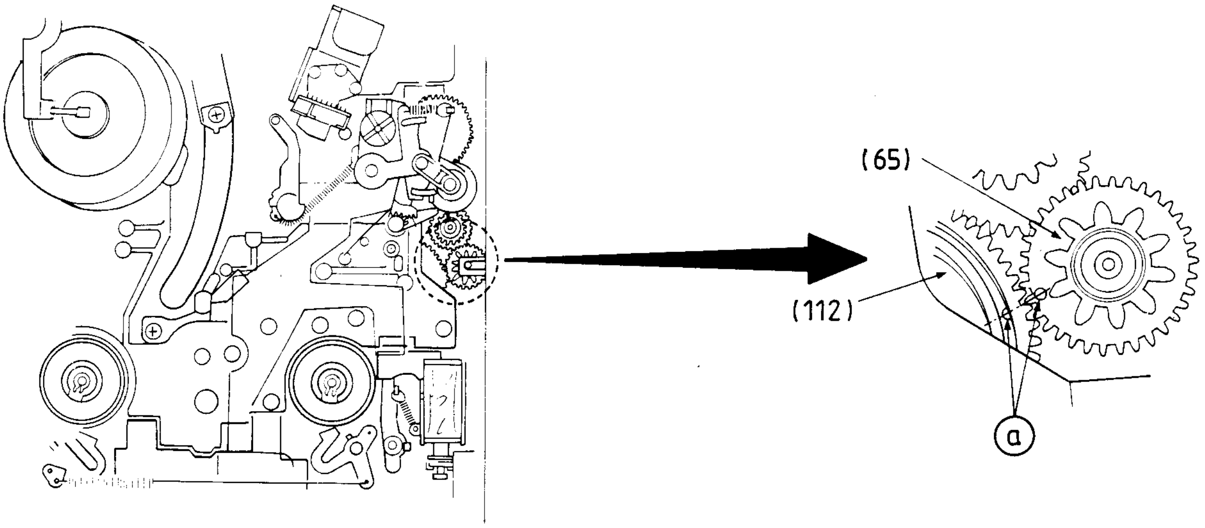


Fig. 61

7.11 Funktionswahlschalter (55), P5-Zahnsegment (50)

- Funktionswahlschalter (55) einsetzen, Schraube "g" eindrehen und Kontakte "h" anlöten (Fig. 62).
- P5-Zahnsegment (50) nach Abbildung Fig. 62 einsetzen. Das Markierungsloch ⓐ des P5-Zahnsegments (50) muß dem 1. Zahn des Zahnsegments des P5-Hebels (53) gegenüberstehen.

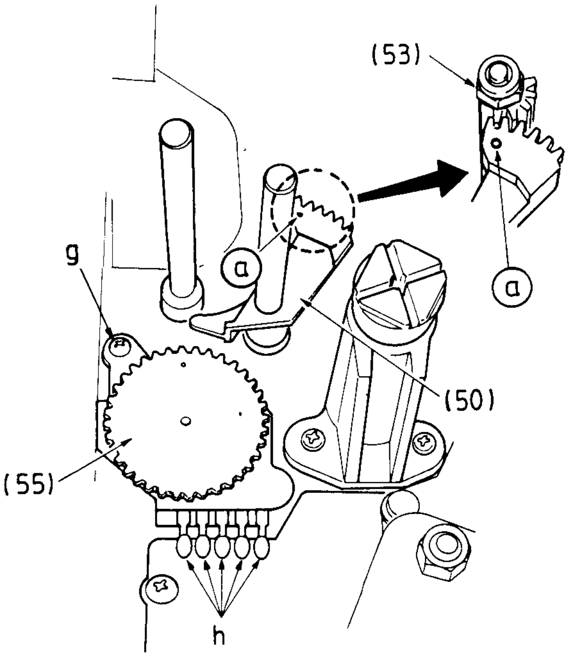


Fig. 62

7.12 Rollenhebelantrieb (51), Andruckrolleneinheit (45)

- Rollenhebelantrieb (51) so einsetzen, daß die Ecke " i " des P5-Hebels (53) in der Aussparung des Rollenhebelantriebs liegt (Fig. 63). Die Markierungsnase ⓓ am Zahnrad des Rollenhebelantriebs und das Markierungsloch ⓐ des Untersetzungszahnrads (64) müssen gegenüberstehen. Außerdem müssen die Markierungslöcher ⓑ des Funktionswahlschalters (55) und des Zahnrades des Rollenhebelantriebs (51) gegenüberstehen.
- Andruckrolleneinheit (45) und Sicherungskappe (44) einbauen.

8. Allgemeine Hinweise

- Die in Klammern angegebenen Zahlen sind mit den Positionsnummern in den Explosionszeichnungen und Ersatzteillisten identisch.
- Justagemarkierungen:

ⓐ kleine Markierungslöcher
ⓑ große Markierungslöcher
ⓒ Bezugsmarkierung im Laufwerk
ⓓ Markierungsnasen

Testcassette **Sach-Nr. 9.27540 - 1011**
- Farbtestbild mit Dropout-Einblendung
- 6,3 kHz- Senkrecht-Vollspuraufzeichnung und Bezugspegel 333 Hz in dreiminütigem Wechsel.

Testcassette (HiFi) **Sach-Nr. 9.27540 - 1016**
- Farbtestbild mit Dropout-Einblendung
- Längsspur - Ton: 6,3 kHz / 333 Hz
- FM-Ton: 1 kHz Vollpegel (± 50 kHz Hub)

Ersatzteilliste

Die Ersatzteilliste für das Laufwerk ist im Service Manual des betreffenden Videorecorders enthalten!

7.11 Mode Select Switch (55), P5 Toothed Segment (50)

- Fit the mode select switch (55), tighten the screw "g" and solder the contacts "h" (Fig. 62).
- Fit the P5 Toothed Segment (50) as shown in Fig. 62. The marked hole ⓐ on the P5 Toothed Segment (50) must be aligned towards the first tooth of the Tooth Segment on the P5 Lever (53).

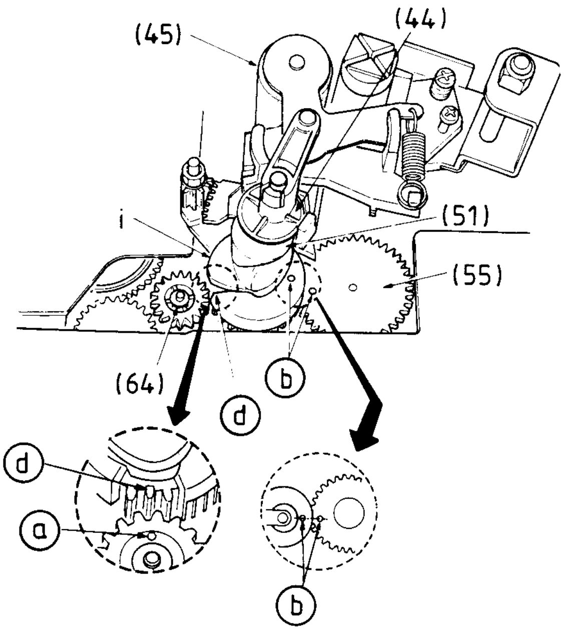


Fig. 63

7.12 Roller Lever Drive (51), Pressure Roller Assembly (45)

- Fit the Roller Lever Drive (51), so that the corner " i " of the P5 Lever (53) lies in the cut out on the Roller Lever Drive (Fig.63). The marked nose ⓓ on the toothed gear of the Roller Lever Drive and the marked hole ⓐ on the Reduction Toothed Gear (64) must be aligned towards each other. In addition, the marked holes ⓑ on the Mode Select Switch (55) and on the tooth gear of the Roller Lever Drive (51) must be aligned towards each other.
- Fit the Pressure Roller Assembly (45) and the Securing Cap (44).

8. General Notes

- The numbers quoted in brackets are the same as the position numbers given in the Exploded Diagrams and Spare Parts Lists.
- Alignment marks:

ⓐ Small marked holes
ⓑ Large marked holes
ⓒ Reference mark in the mechanics
ⓓ Marked lugs

Test cassette **Part no. 9.27540 - 1011**
- Colour test pattern with dropout recording
- 6.3 kHz vertical full-track recording alternating with 333 Hz reference level every 3 minutes.

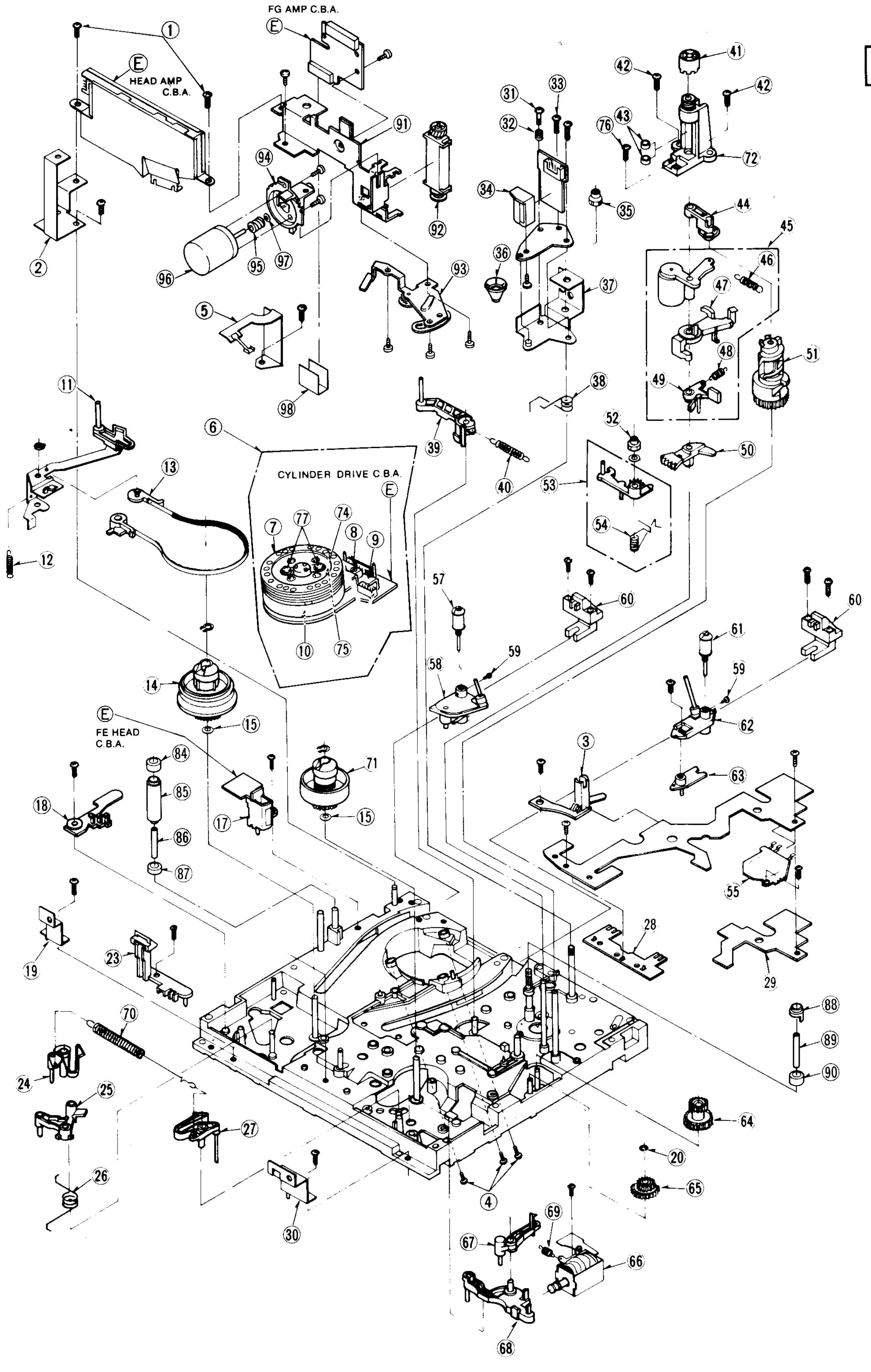
Test cassette (HiFi) **Part no. 9.27540 - 1016**
- Colour test pattern with dropout recording
- Longitudinal track sound: 6.3 kHz / 333 Hz
- FM sound: 1 kHz full level (± 50 kHz deviation)

Spare parts list

The Service Manual of the video recorder referred to contains the spare parts list of the drive mechanism!

Explosionszeichnungen Exploded views

1


FG AMP C.B.A.
E
HEAD AMP C.B.A.
CYLINDER DRIVE C.B.A.
FE HEAD C.B.A.
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②
③
④
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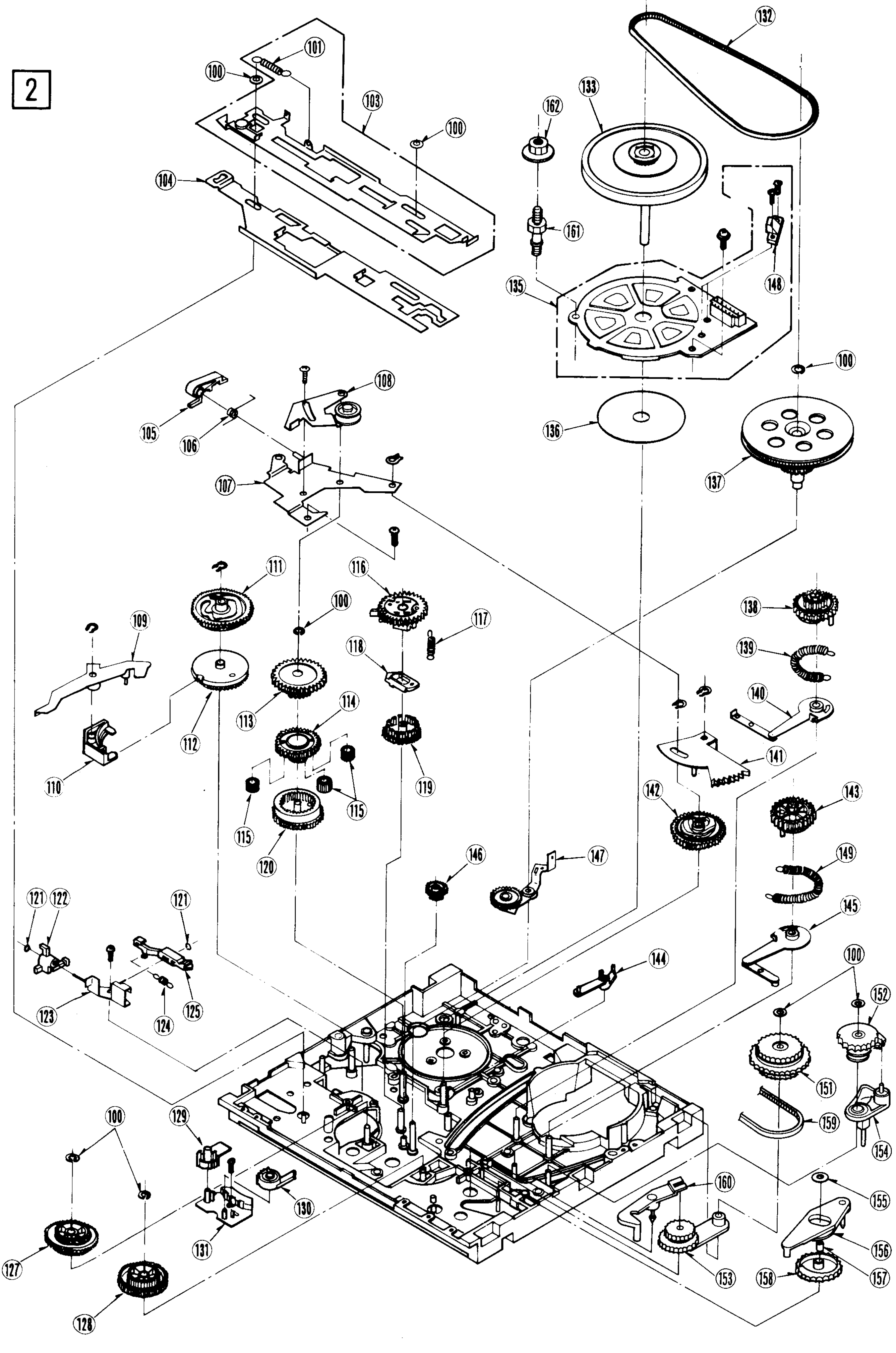

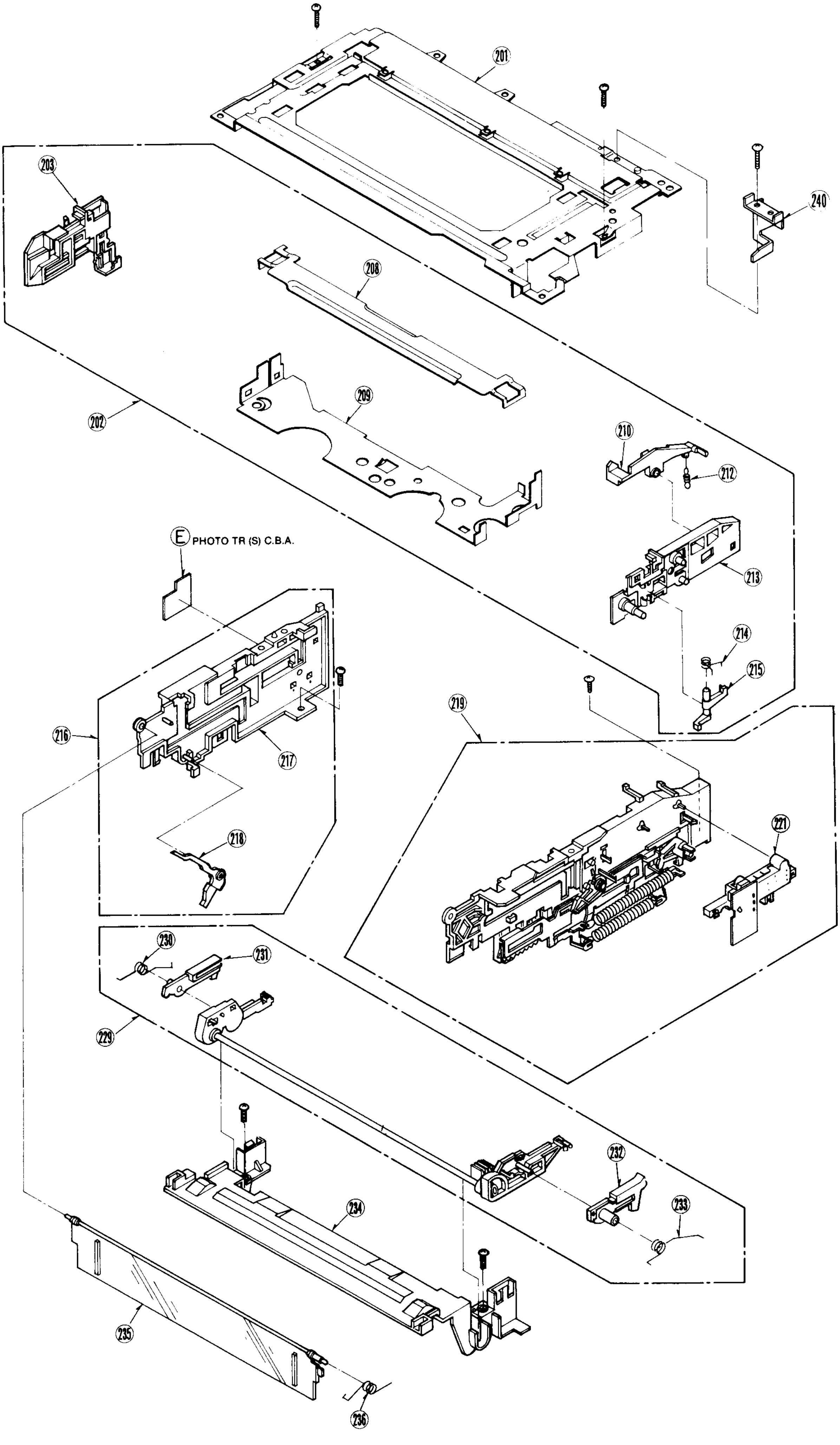
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